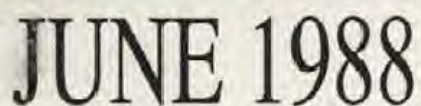


THE NATIONAL APPLE USERS GROUP



VOLUME 3(3)



promac the fastest hard disks in the world

promac

All **promac** products share one objective. To be the finest you can buy at any price. No compromises have been made in achieving a thoroughbred design.

Meticulous incoming component inspection, careful manufacture and rigorous quality control, comprehensively tested ROM and firmware to enhance performance, and error-free software combine to achieve our objective.

promac products are elegantly designed and unobtrusive. They are exceedingly fast and very quiet. With the reliability that comes from superior engineering. They meet or exceed all safety and interference standards.

You owe it to yourself to consider **promac** before accepting any other drive. They represent outstanding value. You can't buy faster or better.

MacEurope supports the full range of **promac** professional products, both internal and external. 20MB, 40MB, 50MB, 80MB, 160MB, 300MB, 800MB SCSI disks, each the leader in its category. WORM/CD-ROM, and the infinite capacity **ProDrive**, utilising removeable 10MB floppies. **ProTape** backs up to cassette at 3.3MB/minute. **promac** products are compatible with Unix and all other Macintosh environments.

MacEurope provides engineering, warranty service, support, software updates and advice.

You can see the **promac** range at your MacEurope dealer. If yours doesn't have stock, or you don't have a dealer, please call us. We'll be happy to help. Call us for literature.

promac and **ProDrive** and **ProTape** are registered trademarks of **promac GmbH** Sybelstr 37 1000 Berlin 12 West Germany.

Apple is a trademark of and Macintosh a trademark registered to Apple Computer Inc.

This advertisement prepared by the Robin Ray Partnership on the Macintosh using **JustText** page composition software from MacEurope.

MacEurope

The Granary, Trowse Bridge, Bracondale,
Norwich NR1 2EG, England. Tel: (0603) 630636

Fax: 0603 630374

Apple2000

June 1988

APPLE2000

P.O. Box 3

Liverpool

L21 8PY

051 928 9097

Contents

General Interest

Contents	1
Editorial	Mick Knapp 2
Profile of the Committee	3
The Nibbler's Corner	Members' Letters 6
Hot Line News	Dave Ward 8
Local Group News	Tom Wright 9
News Bits	16
Members Small Ads	21/80
Algol	Dave Miller 22
The Force to the Rescue	Crick Carleton 26
A Plague of Virii	Ewen Wannop 29
Data Transfer from Apple II to Hypercard	Nick Hunter 34
Useful 'Phone Nos.	37
Guide to Online Databases	Ewen Wannop 38
Software Cache	Ewen Wannop 42
Upgrading the Apple	Tom Wright 50
Apple in Education	53
Mac at the NAMM Show	Craig O'Donnell 66
Club Business - AGM	Norah Arnold 77
List of Advertisers	80

Apple II

The II Problem Page	The Boffin 7
Sound on Two	Jonathan Scott 10
The Magic of PROSEL	Dave Ward 18
Applefest Boston	25
Open Apple Cuttings	27
How to copy ProDOS files from Applesoft programs	Dave Ward 30
Questions & Answers	33

Macintosh

Omnis Questions & Answers	17/76
Microsoft Word 3.0	
Keyboard Commands	Geoff Wood 40
Mac 2000	Norah Arnold 44
Scores Virus	H. Upchurch 46
SuperGlue	54
LPA MacProlog	Bill Pearce 56
Prodigy SE	Mike Davies 60
An evening with LAMUG	Nigel Strudwick 62
Mac World Expo 1988	D & I Flaxman 64
Apple Share PC	Irene Flaxman 68
Network News	70
Mac Library	Norah Arnold 74

Editorial Team

Apple II

Ewen Wannop
Mick Napp

Macintosh

Norah Arnold
Irene Flaxman

A special vote of thanks must go to all those who work behind the scenes, but to whom no credit is given. We thank them for all their input and assistance.

Administration

Alison Davies
Irene Flaxman
0732 740415 (Office Hours)
051 928 4142 (24-hour Answerphone)

Advertising

Alison Davies
0732 740415

Hotline

Dave Ward
0732 740415
Monday-Friday 1900-2100

Local Groups

Tom Wright
0527 71913

TABBS Bulletin Board

Ewen Wannop
051 928 4142

Printers

Old Roan Press
051 227 4818

Cover Design

Stefan Mucha

.....
Annual subscription rates are £25.00 for members resident in the UK, £30.00 for members resident in the E.E.C., and £35.00 for other overseas members.
.....

Founder Members and Supporters of the Apple User Group Council.

.....
Apple2000™ is a trading name of BASUG Ltd., a non-profit making independent company limited by guarantee. The contents of this journal are copyright of BASUG Ltd and/or the respective authors. Permission is granted for non-commercial reproduction, providing the author and source are properly credited and a copy of the relevant publication is sent to the company. The opinions and views expressed in this journal are those of the various contributors, and are not necessarily supported by BASUG Ltd.
This journal is published bi-monthly by Apple2000™ as a benefit of membership in February, April, June, August, October, and December of each year.
Apple™ and the Apple logo are trademarks of Apple Computer Inc. Macintosh™ is a trademark of Macintosh Laboratory Inc. Telecom Gold™ is a trademark of British Telecom PLC. These have been used with the express permission of the owners. The FORCE™ and Apple2000™ are trademarks of BASUG Ltd.
Advertising rates and copy date details are available on request.
.....

Editorial

Major changes to the Apple magazine scene

Since the publication of the April issue of Apple 2000 Magazine (sorry about the late delivery, this is explained later in this leader) there has arrived dramatic news of the decision of Database Publications to cease publication of Apple User. At the time of writing this leader the subscribers to Apple User have had no notification of the decision, but it has been widely reported in the electronic press services, and our own Force and TABBS carried independent verification early in June.

We contacted Database for information but only received confirmation of their decision to withdraw Apple User, but no news of what the subscribers and advertisers could expect for the future.

If you are only just learning about Apple User's demise you will be feeling the same sense of shock and disbelief that I initially felt. There is no doubt that the magazine was a quality publication, contained valuable product information and Database claimed an extensive readership. Our inquiries have not produced answers to the obvious questions regarding the decision to cease publication, but what is clear is the fact that this leaves Apple 2000 in a unique position.

Although there are other groups and publications supporting Macintosh users, there is no other support mechanism for the huge number of Apple// users. We will continue to support our members irrespective of which Apple hardware range they use, but we will also keep in mind that we are the sole means by which Apple// users will find out about new products and services.

And More Drama...

Perhaps even more dramatic than the Apple User news was the announcement by our own Jim Panks to resign from the committee of Apple 2000. The proceedings of the Annual General Meeting were reported in the May issue of Apple Slices, but the shock on the day when Jim announced his resignation is still clear in my mind.

The hole left by Jim's departure was quickly filled by volunteers; at least physically filled. What could not be replaced was the experience that Jim had built up over the many years that he had been editing the magazine.

Our first committee meeting was held in Luton and many of the members were meeting each other for the first time. Joining the committee carries a reasonable level of responsibility as Apple 2000 is a limited company and the committee is equivalent to the board of directors. You, the members, are equivalent to the shareholders (though don't expect any dividend, we are a non-profit making organisation). As the shareholders you have the right to expect that we manage your company as you see fit, and take care of your considerable investment. That is why we hold an AGM. It gives you an opportunity to voice your praise and also your disquiet about how we handle your user group.

The committee consists of the individuals whose profiles are on the opposite page. We are backed up by an army of helpers, and we offer our heartfelt thanks to those people who give their time. People like Keith Chamberlin, who keeps all the membership records up to date, and John Lee, who manages the administration of our Force

service on Telecom Gold. Dave Ward, who runs the very busy Helpline service, and Tony Game, who has become our typist extraordinaire. These people, plus numerous spouses and friends not mentioned by name, are the backbone of the group.

You must be asking the question, what then do the committee members get out of all this in return for the responsibility. The answer in numeric terms is nothing, our travel costs are charged to Apple 2000, but otherwise we gain nothing financially for our efforts. The reason that we help run the group is, believe it or not, that we enjoy it.

So that we don't let our enjoyment spoil yours you must help guide the group direction by feeding your views back to us. To let you know who we are, each committee member has prepared a resume of his/her interests and aims for the group, and what he/she is especially interested in promoting.

You will see that we have a wide range of interests and expertise, and hopefully you will see this range reflected in this publication over the coming months.

New Magazine Format

This issue is the first time that many of the present committee have produced any sort of publication, so we hope that you find the format easy to read and acceptable in quality. Guide icons have been introduced at the bottom of each page so that you will easily see which articles could be of special interest to you, and we have continued the assessment system for product reviews.

Apologies for the April Issue

With the end of Jim's heroic efforts, it was inevitable that something was to suffer. We can only apologise profusely for the late delivery of the April issue of Apple2000. We hope this will be the last time this happens.

We apologise for the omission of any mention of Ivan Knezovich in Apple Slices. Ivan served on the committee for the last two years and was the architect of the changeover from Basug to Apple2000.

Mick Knapp - Chairman



Committee Profile

TOM WRIGHT

I have been a committee member for several years, with one short break, covering Local Groups. I also served on the MidApple local group committee until business pressures forced me to resign recently.

My professional activities include industrial engineering with the Rover Group and running my own D.T.P. business. In addition to this, I am a member of the R & D committee of the Methods-Time Measurement Association.

Prior to entering the industrial engineering field, I worked in the reprographic trade specialising in Microfilm and general photographic applications.

Industrial training courses are another area of my activities, with the emphasis on industrial engineering techniques, and I still manage to fit in the odd training course for reprographic operatives.

EWEN WANNOP

I have been a member of Apple2000 for some years now, and with only a short break intervening, I am now entering my fourth year on the committee.

I have worked over the years to champion the cause of the bulletin board and the Force. Now this has all come home to roost and I have the Bulletin Board whirring away in a back room of my home.

Over the past year I have been working with the IIGS, and I plan to emphasise the importance of this machine, and of the II series in general, within the pages of the magazine.

Which brings me to my duties on the committee. Apart from overseeing the comms side of things, I am editing the Apple II half of the magazine with Mick Knapp, our chairman.

In my spare time, I write software for the II series.

Whenever I can find time to tear myself away from all these commitments, I lecture in a college in Bath. Where, coincidentally, I have been able to introduce DTP over the last six months - a useful knowledge when it comes to the Apple2000 magazine.



Graphic - courtesy of MacAmerica™

IRENE FLAXMAN

I have been Treasurer of Apple2000 since June 1985, and I help Norah with the editing of the Mac pages for the magazine.

I work for one of the largest insurance companies, as a Senior Computer Auditor - having had about 8 years experience as an analyst-programmer and about eight years as a management accountant. I worked for the same company for nineteen years, before moving to one of the local Apple dealers. That lasted about a year, before we parted company. My previous employers then invited me back, in my new capacity. I work mainly with IBM's at the office - from micro's to mainframes.

My original interest, so far as Apples are concerned, was the Apple III (which we still have, although it is now little used). We progressed onto Apple //e, then onto the Macintosh - and this is the machine which is used most frequently, now - for DTP, word processing, accounts, spreadsheet work, graphics (with the aid of Illustrator!), etc.

Dave and I have been married for 19 years. We have two cats (to keep the "mouse" under control!)

Other interests include:

-Scuba diving - I'm Treasurer of our local club.

-Secretary of the local branch of C.I.M.A. (Chartered Institute of Management Accountants), of which I am a member.

-Reading - if I ever have the chance, these days!

-Traveling - holidays are usually spent going around Apple expos now.

I have lived in Liverpool all my life, and I don't anticipate moving away.

KEN HEGARTY

Born in South Africa of Irish parents, and brought up in pre-war China, I have spent the rest of my life as unconventionally as I started it. Always wanting to be a writer, but never quite able to settle down to actually developing my ideas and putting them down on paper, I tried all sorts of jobs but found the ones I was best at - and liked the most - were driving (preferably Rolls Royces), book-keeping (for small businesses) and typesetting.

I got into Apple computers as a way to get myself writing. I recently got interested in postcodes and correct addressing. I am hoping to help the membership secretary with the members' address list.

NORAH ARNOLD

I work in education, as Head of Maths and Computing in a school. From September 1988 I will take up the post of Bedfordshire Coordinator of the National Oracy Project.

I have been Secretary of Apple2000 for several years and was Chairman during 1982 - 84, having been involved with the group since its inception. At the present time, I edit the Macintosh section of the magazine and look after the Macintosh software library. One of my favourite hobbies is the production of computer graphics although I rarely get time to produce pictures just for fun.

Together with my husband, John, I run the Hertfordshire and Bedfordshire local group.

MICK KNAPP

I first used an Apple//+ nearly ten years ago and I was quickly hooked on the Apple way of doing things. I admire the Apple technology, and I've made the pilgrimage to Cupertino to see the first-ever Apple.

I sell computers for a living, specialising in CAD/CAM, and I guess that sooner or later I'll come up against CAD on a MacII - but it hasn't happened yet.

To me, Apple epitomises all that is best in personal computing but I feel that the available technical software is still immature. I'm still very much into Apple //'s and I think that Appleworks with Timeout accessories is a difficult combination to beat, but I have a Mac SE on order so I am half-way to defection.

I was co-opted onto the committee and I have a number of aims for the coming year. I want to make the magazine self-funding, so that more of the members' subscriptions can be put back into raising the profile of the group. I want to attain the right balance of Apple// and Mac material throughout the group, and I want each member to feel that joining Apple2000 gives him something that no other service can offer.

KEITH ROOKLEDGE

I am 48 and a biochemist by profession. I spent over 20 years in a number of research fellowships in areas associated with health care. For the last 10 years, I have been involved in commerce in a number of capacities. I have had experience with large number crunchers but now I am an Apple man, starting with an Apple Europlus but now using a IIGS. I spend my leisure time away from the VDU - sailing and in the garden. In addition, I have an extensive interest in reading and the theatre.

For £450
we'll give you
a brain
transplant.

It's a simple operation that will clearly make your Macintosh[™] 128K, 512K or 512K/800 more advanced and a lot faster.

For £450 you now have the opportunity to upgrade to a Macintosh Plus with a full megabyte of memory. All performed efficiently by your Apple[™] Macintosh dealer in a matter of hours.

Just take your Macintosh along to him.

He'll install a Macintosh Plus logic board, 800K Disk Drive and give you System Software which includes MultiFinder[™] and HyperCard[™]. With this special upgrade kit you're fully equipped to take advantage of the most sophisticated software.

You'll also have the means to attach SCSI devices such as an Apple Hard Disk or the new LaserWriter[™] IIsc.

Can you imagine how useful MultiFinder will be? It'll allow you to run a number of different applications in separate windows all at the same time.

Also, run programs in the background while working in the foreground.

Another impressive part of your new Macintosh is HyperCard.

The revolutionary program that enables you to access, customise and create information.

HyperCard is unique because it integrates all types of media, not only text and graphics but sound, animation, voice and video.


Using HyperCard is easy because it's based on the familiar idea of index cards.

All will be explained to you in the manuals we provide with your kit.

If you're interested in progressing to a Macintosh Plus, contact your Apple Macintosh dealer.

He'll provide you with all the information you need and book you in. Or you can dial 100 and ask for Freefone Apple.

As always, when it comes to innovative ideas, Apple are the brains behind them.

 **Apple[™]. The power to succeed.**



The Nibbler's Corner

Our resident pundit scans the mailbag and ponders the contents

Summer is showing itself as I write this, and the window blinds are pulled to stop the screen display vanishing in the glare. What a joy it will be when we can run proper flat screens and watch the weeds grow as we write. It is a strange and intense thing working with computers. We closet ourselves in front of the magic eye, and beat our fingers to a pulp while the world spins by.

Opening the postbag the other day, I came across the following letter. It triggered many thoughts, but before I get sidetracked, I suggest you read it too.

610 Andrew Lane
Pomona
Merseyside

Dear Apple2000

I am writing to tell you what things could be done to improve Apple2000 and where to get the cheapest Apple games with high quality graphics.

To improve your club you could offer more games with better graphics. When I bought one of your Adventure disks I was expecting to have some graphics. But I didn't.

Also I have been looking for games which I could type in myself. I do not want them to be long games like 2000 lines because I am only aged eleven and I do not like doing this. My dad also is looking for a magazine called Orchard he has rung them at one address where they used to be and they seem to have moved on and he was wondering if you know where they have gone. Finally we are looking for a group which sells high quality games for cheap prices for example games like Hitch Hikers Guide to the Gal-

axy, Gunship, and Under Fire. I hope you will be able to help me and dad in our quest for cheap Apple games.

Yours sincerely

Robert Hornby

(PS if you are wondering who I am. I am the child of Mr R.P. Hornby)

Well now Robert, quite a lot to cover in a letter like that. It made me painfully aware of the problem that Apple2000 has in trying to please all its members. If it was to feature Apple II games to any extent, the Macintosh users would complain, the business users would revolt and the AppleWorks fiends would resign. To please all is impossible.

I suspect that there are not many high quality games being written these days for the Apple II as the programmers will be busy writing for the IIGS. The IIGS is where the market for games is these days. Apple2000 can only sell what it receives, and in most cases this is public domain software. High quality games have never been a feature of that scene. To get a range of games, try MGA or dare I say it in this magazine, our rival publication Apple User. Both of those regularly advertise a range of games. But remember nothing comes cheap these days.

I see Robert's father has been trying to find out about the Apple Orchard magazine. This magazine has always been a mystery to me, and at the last check had ceased to exist, perhaps someone knows differently? The best magazines for the II range that I have come across, apart from Apple2000, are A+, InCider and Open Apple. The first two cover the whole II scene, and are excel-

lent magazines. Open Apple is quite unique, an 8 sheet monthly newsletter quite unsupported by advertising. It pulls no punches, and covers many topics. AppleWorks is a specialty of Open Apple.

You will have seen in the May Apple Slices that our chairman asked you all to tell Apple2000 what you want. This is a perennial problem I would think. Among such a large membership there must be many different needs. The committee acting on your behalf can only provide what they think you need. You, like Robert, must tell them if you are not getting what you want. I for one felt that the Apple II was not being given a fair deal in Apple2000 over the last year, but thankfully Jim made steps to rectify that in the last issue. Those old Apple II's have not died, they have just passed on to new owners.

I see that the virus plague has hit the Macintosh brigade, but also it appears to be trying to get at the II's as well. It is a great shame that this kind of thing has happened. Not only will we all waste time trying to protect ourselves, but the credibility of the Shareware market will have been dented as a result. It may even dry up altogether if this all gets out of hand. We put our trust in the integrity of software, and to have to mistrust even commercial packages can only put back the cause of computing many years. Perhaps the rumours that viril are spread by commercial houses trying to kill the Shareware market are true.

We will shortly be in the grip of the autumn computer shows, with their attendant wafts of vapourware. The Zip chip launched itself on the world as the panacea for the II brigade. The 'magic accelerator on a chip' it said, by the company that brought you Speed-Demon under a new name. No one has yet seen one of these chips in the flesh, and the only working demonstration was run by a device four times the size of a //c motherboard. I see the chip has been advertised in the UK, I do hope it materialises and egg is not left on faces over here.

Let me hear your views comments and ideas - till next time happy byting.

The Nibbler



Q. Sometimes when I am changing discs by pressing OA Ctrl Reset on my IIGS, the next disc does not always load correctly, and I am left with the computer either hung or crashed to the monitor.

A. There could be a number of reasons why this happens. Some programs running on the IIGS set up a regular interrupt from the system heartbeat. This interrupt will be serviced by a routine provided by the program. If you do not exit these programs correctly, you may find that the interrupt has not been cleared. When the next disc boots and loads, it may then overwrite any interrupt drivers that may be in force, leaving the active interrupts with nowhere to go. It is also possible for the system to simply get itself confused, and make assumptions about what has been left active in the memory. The solution to all these problems is to do a cold boot either from the keyboard or by turning the machine off and then back on after a 20 second pause.

Q. Not all my files are correctly date stamped on my IIGS. I understood that my IIGS had a clock and that files would always be marked with the right time and date when saved to disc.

A. Only versions of ProDOS later than V1.1.1 will actually recognise the clock in the IIGS and therefore datestamp files. You may find the earlier versions of ProDOS on some application discs. ProDOS from the advent of the IIGS onwards has been renamed as ProDOS 8 to avoid any confusion with the 16 bit operating system ProDOS 16. You will need to use ProDOS 8 to recognise the new features of the IIGS. We are at the time of writing up to V1.4 of ProDOS 8. It is quite in order to change the copy of ProDOS on any of your discs. Be careful however, as ProDOS 8 is a larger file than the earlier versions of ProDOS and may not fit on some 5.25 application discs.

Q. I sometimes get odd characters in the left margin of the screen dumps from my Imagewriter. What is causing this? I have checked all the connections and switches and nothing seems to stop them occurring.

A. The Imagewriter II, unlike

The II Problem Page

Ask our technical Boffin your problems on the Apple II and IIGS

the original Imagewriter is able to print in colour. If no checks are made in the program to see that an Imagewriter II is really present, colour information may be sent out to the serial port. This colour information is normally absorbed in the Imagewriter II to move the ribbon to the correct point. However on the Imagewriter I these commands are not recognised and the odd characters you have seen are printed as a result at the start of the line. The answer is to make sure you have the correct printer selected when you install the program.

Q. I have an Apple II+ with an 80 column card. However some programs that are meant to display on the 80 column screen hang or crash as they boot and I see nothing on the screen at all. Help...

A. There was no standard set for the 80 column screen on the early Apple machines. Most 80 column cards will correctly use the screen output hooks through their firmware. The Apple II maintains these hooks in page zero and should perform correctly with programs expecting an 80 column screen. However there are two possibilities in your case that could cause such a problem.

Firstly any program expecting the Apple 80 column standard of the //e, //c or IIGS will probably leave you with the 40 column screen selected and display only every other character on the screen. The Apple //e 80 column screen is constructed and addressed in a very different way to any other 80 column display. Programs expecting this screen simply will not work on the II+.

The second possibility is that you have a non-standard 80 column card that requires special

drivers loaded from disc to operate. If your card needs a pre-boot disc, then it is of this type. The boot drivers may have been overwritten by your application as it loaded. You may find it worth while changing to an 80 column card that conforms to the Videx Videoterm standard. Most application programs can display on that type of card. These cards can be picked up for about £45 from many sources.

Q. I have been told that I can turn over the disc in my 5.25 drive and use the other side. I have tried this and can only get an I/O error. What am I doing wrong?

A. You will have to cut a notch in the other side of your disc before you can format it for use. You can get a very handy notcher for a pound or two from many dealers. Once formatted you may use the second side of your disc in the same way as the first side.

However be warned, most discs are only guaranteed as single sided discs and may not be very reliable on the back side. These days discs are not made as single sided discs, it is the ones that fail a strict quality test on one side that are issued as single sided. The Apple is however very tolerant of most discs, and I know of many thousands that are used double sided in this way. Very few errors are reported in normal use.

But please only use the second side for data that is not important. Keep your important discs as single sided ones only.

Write to the Boffin with your Apple II and IIGS problems.

**The Boffin Apple2000
PO Box 3
Liverpool L21 8PY.**



Hotline News

Dave Ward - **APPLE II/III/IV**
Mondays to Fridays 1900-2100

Paul Amos setup AppleWorks with PinPoint version 2.0 on his Apple IIs only to find that it would not recognise his Imagewriter 2 printer. PinPoint version 2.0 appears to have been a revision upgrade so that the system would work on the Apple IIs only to have one of those unfortunate bugs in a routine that should have been tested. We tried this setup on other Apple IIs computers with the same result so a bug was almost certainly the cause. This was confirmed when I contacted Mark Whelan of Bidmuthin technologies who suggested that we try PinPoint version 2.01 which would work. This version does, indeed, work.

A friend recently reported the computer users ultimate fear -

coffee spillage on the keyboard. Apparently his secretary using one of four, Apple //c computers accidentally spilt coffee onto the keyboard with the result that the machine produced strange characters on the screen when keys were pressed. Later when the coffee had dried some of the keys were stuck and when pressed would not release. Undaunted he took the machine apart and found that the keyboard was detachable from the main board by simply pulling a plug! He then proceeded to wash the keyboard in clean cold water and finally to dry it in a warm air stream. When reassembled the machine worked perfectly and still does!! This is not a recommendation! Perhaps other members have tried this?

Louis Baker contacted me regarding a tip for Applewriter II users. He thought that he might be able to use a short-cut in the preparation of Glossaries: since Glossaries are apparently text files just like documents he tried to prepare one using the editor, save it then load it in as a Glossary. Unfortunately he

found that entries containing control characters did not work as you can't enter the control-V's required in a textfile.

Certain software for the Apple IIs seem to possess, what is in my opinion, a rather serious bug. Some games and an important sounding spreadsheet will not apparently work if you have some of the memory setup as a RAMdisk. I'm sure most users could do without this hassle. The copy-protection schemes used by some software produces also appears to give problems with certain Apple IIs setups. We would be interested to hear from any readers who have experiences strange problems with programs specifically for the Apple IIs computer.

Do any members know of Apple //c programs that can be used to hold dental records. I seem to recall that back in 1981-1983 when Apple // computers were more popular there were a few packages advertised but I haven't seen any references lately.

Dave Ward



Apples Work

Open-Apple is Tom Weishaar's monthly newsletter for knowledgeable Apple II users. It's thin but packed tight with Apple II lore, humor, letters, tips, advice, and solutions to your problems. Compared to other Apple II publications, **Open-Apple** has the highest new-idea-per-issue ratio, the clearest writing, the funniest cartoons, the longest index, the best warranty (all your money back if you're not satisfied), and it takes up the least shelf space.

Il cue #58

There are four primary types of Super-High-Res graphics files. Three are \$C0 or PNT types; these are 'packed' so they take up less room on the disk. Type \$C1, or PIC, is an unpacked 32k snapshot of the graphic. The three packed types are distinguished by the following subtypes:

1. \$C000 (PNT)
2. \$C001 (PNT)
3. \$C002 (PNT)

For more, see the April 1986 **Open-Apple**, page 4, 24.



From our fan mail:

I have never enjoyed reading any magazine so much as **Open-Apple**. I like its style. The information each issue provides is amazing. With almost every issue that I read I keep shaking my head and muttering 'I didn't know that!'. If only I knew about **Open-Apple** earlier, I wouldn't have subscribed to *A*, Nibble* and *inCider*. They aren't bad, but compared to **Open-Apple**, they are nowhere.

Zainudin Hashim
Kuala Lumpur, Malaysia

Open-Apple

POB 7651, Overland Park, KS 66207

Try two months free!

Offer good one time only. Try **Open-Apple** at our expense. Cut out or photocopy this coupon and mail it to us for a free two-month trial subscription.

Ad code M283

Free airmail worldwide

TABBS

The Apple2000 Bulletin Board System

Bringing you news, views and software from the Apple II and Macintosh arena, the very latest in IIs utilities and Apple II shareware and featuring a weekly update of the computer scene with Steve Gold's NEWSBYTES™ UK.

TABBS is our modem users very own hotline and is brought to you as a service of Apple2000.

24 hours on V21 V23 V22bis 8N1

Local News

The interval between the last issue and this one has been fairly quiet on the local group front, part of the reason may be connected with the fact that I realised that I have a problem with my phone line last night. Only one of my extensions appears to be working at all, and that one only appears to work for outgoing calls, I wonder how many people have tried to call me since last Sunday.

The addition of the M25 Business Mac Group took our list of contacts to thirty three last issue and I have one more to add this issue. The latest addition is the Orpington Computer Club which is a multi-interest club numbering half a dozen users of various kinds of Apples amongst its membership. The Orpington club has been established for some years and has a total membership of about sixty, they are always keen to

welcome new members and as usual the Apple members are slightly biased and you will receive a very warm welcome from them if you go along. They meet every Friday at 7.45pm at the G.E.A Hall, off Woodhurst Avenue, Petswood, Orpington, Kent. That makes number thirty four folks, not far to go to forty!

Jim Panks tells me that it is intended that the M25 group will meet every fourth Wednesday, you can base your calculations on the 1st June which was to be the next meeting when I spoke with Jim. You can get more details about plans for the group from Jim if you ring him.

The Cambridge Apple User Group is still going strong, now organised to provide separate Apple II and Macintosh meetings. They will be happy to receive suggestions from anyone regarding topics suitable for club evenings.

On the subject of suitable topics the following suggestions may be of help to some of you as well as to Ian and Richard:

1. Microsoft Works as the Mac equivalent of Appleworks?
2. Microsoft Word formula facilities (not at all clear to the lone adventurer)
3. Appleworks accessories
4. Spreadsheets
5. 'Desktop publishing', there really is life after PageMaker
6. Disk drives and/or storage media
7. BASIC programming, a high proportion of users are very interested in this
8. Alternative high level languages
9. Databases
10. Hypercard
11. Games
12. Compilers, should interest BASIC programmers, particularly advice on the limitations of Compilers
13. ProDos, still seems to be a mystery to many Apple II users
14. Dot matrix printers
15. Alternative printers, Lasers, Ink jet, etc.
16. Modem associated communications, be careful this subject is less popular than much of its publicity would have you believe
17. Font manipulation
18. Drawing and painting software
19. Graphics aids, tablets, scanners, etc
20. Word Processors

Well that has just about worn me out for tonight. I am still waiting to move house by the way, now anticipated to be the 11th June, so if you have difficulty contacting me get in touch with Irene Flaxman and she'll pass on a message. That's all for this time, enjoy dem Apples.

Tom Wright



The New ORPINGTON COMPUTER CLUB

CONTACT:

Terry Wheeler ☎ 01819-321125

VENUE:

G.E.A Hall, off Woodhurst Avenue, Petswood, Orpington, Kent

MEETS:

7.45pm every Friday

The FORCE

The Telecom Gold Apple2000 Closed User Group

Giving you access to the full Telecom Gold system including International messaging and Telex access.

Friendly menu structure with single character selection of the most used facilities.

We offer a support structure for our users that is fast, friendly and helpful. Most problems can be answered with a simple phone call to John Lee our Sysop.

There is no entry fee for joining the Force.

You will be billed each month with any charges you have incurred, we add only a small £5 service charge.

If you are not an Apple2000 member there will be a additional service charge on your monthly bill.

For further details contact:

Apple2000 The FORCE, PO Box 3, Liverpool L21 8PY

Sound on Two

Jonathon Scott listens to two music programs on his Apple // and IIGs

Before I started using music packages on the Apple I knew very little, if anything, of music. The music lessons that I was subjected to at school provided neither inspiration nor motivation to change this state. Apple Computers have never been held in very high esteem when it comes to the sound department. However, over the years, various companies have produced a number of 'add-ons' for the Apple // range that enhance the sound output of the machine. Products that immediately spring to mind are The Mockingboard, The Cricket Board, The Echo Plus System, The Alpha Centuri system or the Greengate DS3 sound sampling system. This review however concentrates on a number of software products that have been released for the Apple // series including the //GS. The packages that I will be dealing with are:-

*The Music Construction Set
from Electronic Arts
(Apple // Series and //GS)
The Music Studio from Activision
(Apple //GS)*

The Music Construction Set Apple // Series

The Music Construction Kit for the Apple // series does not need any form of additional hardware to run. The basic program allows two different voices to be played within a single piece. However, the program is designed to run in conjunction with the Mockingboard or Cricket system, and when running in this configuration, the system is capable of producing up to six voices at any one time.

The program uses an icon type system, and the pointer can be moved in a number of ways. The

cursors keys can be used, but if the machine has a mouse, joystick or a Koalpad attached to it, then it is possible to use them. Using the system on a //GS in //e emulation mode, the pointer seemed very responsive to movements of the mouse which is better than a lot of packages on the //e that make use of a mouse. Having said that though, picking up pieces can be annoying. The problem being for some parts, to pick them up, you have to have the pointer above or to the left of the actual part and not over the piece before you can pick it up. The same 'relationship' problem sometimes occurs when you place the part on to the score and when you try to remove it from the score.

The screen is split into two parts. The top section is entirely taken up with a scrolling blank score on which the user places the notes. In the lower half of the screen the 'Parts Box' can be found. The Parts Box contains notes of various values (ranging from a whole note (Semibreve) to a sixteenth of a note (Semiquaver)), rests (these range from a whole rest (Semibreve Rest) to a Sixteenth Note Rest (Semiquaver Rest)); natural, sharp and flat signs; an octave raiser (8===); a tie; and treble and bass clefs.

Also, in the lower section of the screen there are a number of icons that allow you to manipulate the data that you place on the score. For example, there are two icons, one with a pair of scissors and another with a glue pot on. These are used to cut and paste large chunks of music with the score. Various configuration parameters can be altered by selecting the 'plug' icon. These parameters cover pointer type, sound

device, printer and interface cards. Disk operations, such as load, format, save, delete and catalog can be accessed through the disk icon.

The method of placing music onto the blank score is roughly the same for all the programs. Point to a part in the Parts Box or the Note Menu as the case might be, and drag it to the desired location on the score. It is also possible to drag parts off the score.

The quality of the sound output from the basic system, (I didn't get the chance to try the system with a Mockingboard) is not great in comparison to some home micros but it is an improvement over the one channel sound that the basic Apple // can provide.

Apple //GS Packages

Everyone knows that the S in the APPLE //GS stands for sound. At present there are only a few dedicated music packages on the market aimed primarily at the //GS. Two such packages are the Music Construction Kit from Electronic Arts and The Music Studio from Activision. Both these packages take advantage of the new enhanced features of the GS, using digitised instruments and implementing multi-channel stereo sound.

The Music Construction Set Apple //GS

The Music Construction Kit from Electronic Arts looks very similar to its sister package on the // series. It implements an icon based system that closely follows Apple's guidelines on the 'Human Interface' which makes it very simple to use and you do not need to pick up the manual to use it. The manual, although quite brief (20 pages), is very well written and could well be used as an introductory music text book. Within ten minutes of reading chapter three you can be listening to your own 12-bar blues composition.

Unlike its sister package, the GS version implements pull down menus which handle all the standard file manipulation, cutting, pasting and playing the music. Also within the Play menu there are options to select instruments for the piece and another option, (not found in the Music Studio), which checks the number of beats to the bar.

GO AHEAD AND DRAW YOUR OWN CONCLUSIONS.



PRINT MAGIC™

*This is from Print Magic's graphics library.
Note the extreme detail.*

They say a picture is worth a thousand words. So go ahead and compare bears.

Now, for those who still need a few words, consider the following*:

Print Magic™ allows users to place an unlimited number of fonts, graphics and borders anywhere on the page or card. *Print Shop™* doesn't.

Print Magic graphics can be enlarged up to six times. *Print Shop*, just three.** *Print Magic* borders can be sized in nine thicknesses. *Print Shop* offers a single standard size for each border.

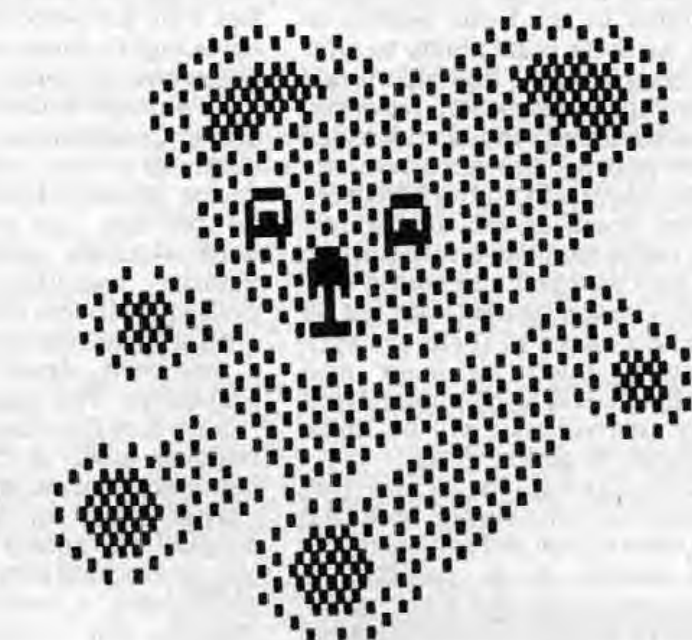
And *Print Magic* comes with

a complete set of paint tools, including 24 paintbrushes, 5 pen sizes, fill patterns, and circles, ovals, boxes, rectangles and lines. *Print Shop?* Well, you get the idea.**

Finally, while *Print Shop* lets users work on just a piece of the page at a time, *Print Magic* lets users work on the full page. So no preview is necessary.

To make a long advertisement short, no other software of its type gives you as many choices or as much power of expression as *Print Magic*.

*product comparisons for Apple IIe/IIc, IBM and compatibles
**excludes *Print Shop* Apple Igs



PRINT SHOP™

Print Shop's bear is barely there.

PRINT MAGIC would normally retail for £59.95, but MGA have secured an extra-special deal for UK users and our price is only £26.99 including UK postage/VAT

Print Magic is fully compatible with *Print Shop* graphics, *NewsRoom* clip art, as well as *Fontrix* fonts, making this by far the most extensive and expandable graphics printing program for the Apple II. Our libraries contain 3000 additional graphics, 2000 pieces of clip art, and 150 fonts just waiting to help you express yourself better with *Print Magic*.

Print Magic works on Apple IIe, IIc, IIGS

MGA SoftCat
Pear Tree, Appledore,
KENT TN26 2AR ENGLAND
Telephone 0233-83571 (fax 83561)

PRINT MAGIC

BY EPYX



Print Magic is a trademark of Epyx, Inc. The *Print Shop* is a trademark of Broderbund Software, Inc. The graphics were printed using an Apple IIc and ImageWriter® printer

The system allows up to two instruments to be used, which on a machine that can handle up to fifteen voices is a big restriction. One of the instruments is assigned to the treble part and the other is assigned to the bass. There are thirty-four instruments included in the basic system to use. As there is no ability to alter the instruments, this also tends to become a restriction. However, the instruments that are included in the package are very good. The piano, especially in the bass area is very good, as are the strings. The banjo and the church organ are also digitised and sound very good. The instruments are not all digitised, some of them are synthesized, such as laser and tonedrum. It is also promised that more instruments will be made available in library disks.

Editing the music is also very simple. By painting the area that you wish to edit and accessing the edit menu, it is possible to cut, paste move and even transpose the selected area up or down any number of notes. There is a problem in moving from one position in the score to another position quickly, but it is good at fine movements. The system has also the ability to print the score that you enter, and the print quality is of a high standard. Unlike The Music Studio, it is not possible to add lyrics to the song.

Entering the data is exactly the same as the original version, released some five years before this version!. The notes can be picked up from the parts box in the lower half of the screen and then placed on the blank score. There have been some additions to the parts box, such as thirty second notes and rests (Demi-Semiquaver) and Quintuplets. However, this does have some problems, it is very difficult to place 32 thirty second notes within one bar and if accidentals have to be applied then it becomes nigh on impossible. To the right of the parts box are three sliders. One controls the tempo and the other two control the treble and bass volumes independently.

A standard problem in both fine packages is the inability to change the key and time signatures within the piece. Many songs change tempo or key in

mid-song. There is also the problem of adding triplets to a combination of notes without corrupting the beats to a bar check. Also, it is not possible to add triplets to rests.

e.g. Triplets applied to a quarter note and an eighth note combination does not work but the problem can be overcome by using three eighth notes with a tie between two of them.

As with the Music Studio, The Music Construction Kit has the ability to access and use a MIDI device, (Musical Instrument Digital Interface - an industry standard which is used by all the popular manufacturers). The problem with this being it will only output to the midi device, such as a keyboard, drum machine or sequencer. The program cannot receive data from the device which removes some of the benefit of using an external system.

What about the quality of the output? The sound that the system produces is very good, a demo piece using a banjo and strings does not fail to impress anyone who hears the program or machine for the first time, and the number of combinations of instruments that the program offers makes it an attractive addition to anyone's software library.

The Music Studio - Apple //GS


Once past the long loading routine and the title song which would not be out of place in a Butlins ballroom, The Music Studio displays a bewildering main composition screen. Again the main part of screen is taken up with a blank scrolling score on which the notes are placed. As with the Music Construction Set, the Music Studio has menus, but they appear at both the top and the bottom of the screen. All the features can be accessed by either pull-down or pop-up menus and the whole system is covered with different colours. E.g. All the instruments are a different colour which i) If you are colour blind, it makes distinguishing between instruments difficult and ii) It makes a complex composition look more like a Salvador Dali painting.

The 'interface' used on The Music Studio is a straight replication of the system used on the Atari ST and the Amiga, which is

very inefficient. This works in an entirely different way to the Apple Interface. For example, the user has to firstly select a function and then an object which contradicts the usual order, selecting an object and then the action which applies to it.

This method is strange at first, but you soon get used to it. The file menu contains four features: Load Song Files, Load Sound Files, Print Song and Quit. Once a load function is selected, a standard dialog box is displayed. The box has all the features found within the normal Apple system: Load; Save; and Delete, but it also has a number of functions that aren't found within the Apple Dialog. These options are labeled Rename and Append. Unlike the Music Construction Set, the Music Studio cannot determine which files on your data disk are songs and which are instrument files, so the File dialog expects the name to have a suffix, a sound file would be something like .SND and a song file would have .SNG. This whole 'suffix' system gives the program a bit of an amateurish feel about it.

The system has a vast number of features to offer. Each part of the screen has been taken up with either a pull-down or push-up menu or a slider for volume or tempo. The same range of notes as the Music Construction Set are on offer in a pull down menu. The rests are in another menu of their own, and the also cover the same range. The various keys, sharp, flat or natural are in another menu. The editing features are kept in another pull-down menu. The features available are roughly the same as those supplied in the Music Construction Kit. Copy, Cut and Paste are supported, as is the Transposition of a block. Another feature that appears in the menu is ability to lengthen or shorten the length of every note within the specified block. This, which is not found within the Music Construction Kit, is very useful when experimenting and writing your own music. A feature that appears in The Music Studio but not the Music Construction Kit is the ability to add a repeat.

This can be easily simulated by copying the block to be repeated and placing it after the original block. In the Music Studio, 



plusRAM-16

The Power to Expand

ADD ONE TO SIXTEEN MEGABYTES TO YOUR APPLE

plusRAM-16 is the newest RAMDisk card from CIRTECH, designed to let your Apple keep right on growing! plusRAM-16 plugs into any standard slot in your Apple II+, IIe or IIGS, and comes complete with one megabyte of memory ready installed. It is fully socketed to allow you to plug in extra RAM chips when you need more memory, right up to sixteen megabytes.

plusRAM-16 is a RAMDISK card which works just like an incredibly fast disk drive, to make programs operate at electronic speeds. It's like having instant access to all your data!

■ plusRAM-16 is automatically used by AppleWorks for desktop expansion. It's also supplied with lots of extra-special enhancements for AppleWorks (vers. 1.3 & 2.0 US):

- A full function calculator which pops up instantly on the screen any time you need to use it.
- A massive 42K print buffer which can be assigned to any printer.
- Lets you use your AppleMouse for full cursor control and menu selection.
- Automatic saving of large desk-top files to multiple disks.
- Onscreen date and time display (from any ProDOS compatible clock).
- Lets you run AppleWorks 1.3 on the II+ (with 16K language card and 80 column card).

■ plusRAM-16 uses custom logic circuits and advanced design to give high reliability and much lower power consumption in your Apple than other RAMcards.

TOTAL MEMORY CONTROL WITH THE RAMDESK MANAGER

The RamDesk Manager, with its Macintosh-like window environment, lets you divide the huge plusRAM-16 memory into several independent RAMDisks from a choice of six different set-ups. Each RAMDisk can be used to store different programs or operating systems. To save time when copying programs into a RAMDisk, you can use the special RamDesk Manager restore function which can load a complete floppy disk in under 12 seconds! You can easily move from one RAMdisk to another and when you use one RAMDisk, the others are 'invisible'. Any sequence of RamDesk Manager functions can also be set to execute automatically each time the RamDesk Manager is booted to save you even more time!

■ plusRAM-16 is supplied with the unique RamDesk Manager which lets you control all that extra memory so you can change instantly between programs as often as you like, without having to use slow drives.

■ plusRAM-16 is supported by more software than any other RAMcard; ProDOS, Pascal 1.3 and Cirtech CP/M Plus automatically recognise plusRAM-16 and full support is included for DOS 3.3, CP/M 2.20b/2.23 and Pascal 1.1/1.2.

■ plusRAM-16 is designed to observe Apple standards to guarantee maximum compatibility.

■ plusRAM-16 is easily expandable using standard RAM chips; from one to four megabytes with one megabit chips, and up to sixteen megabytes with forthcoming four megabit chips.



The plusRAM-16 in this example has been set up using the RamDesk Manager to have four different RAMDisks - Appleworks, DOS, Pascal and CP/M Plus. The graphics RamDesk Manager shown is for use with the enhanced 128K Apple IIe and Apple IIGS. A text version is also supplied for use with other models.

plusRAM-16

ALL THE POWER YOU'LL EVER NEED - £229.00

plusRAM 16 is just one of the comprehensive range of CIRTECH RAMcards and storage devices:

plusRAM - 1

If you don't need more than one megabyte, then plusRAM - 1 is the card for you! With all the same features as plusRAM-16, it comes with 256K of RAM and is expandable to one megabyte. (RamDesk Manager requires a minimum of one megabyte.)

from only £99.00

plusRAM - GS2 and - GS8

RAMcards specifically for the Apple IIGS memory expansion slot to add up to 8 megabytes of extra memory. Complete with powerful AppleWorks enhancements and the facility to instantly boot programs with the PROMDisk and ROMDisk Adaptors

from only £99.00

plusDISK

A major advance in storage technology, plusDISK is unmatched for sheer speed and performance - all the speed of a RAMcard and the permanent storage of a disk drive. Supplied with 128K and expandable to 1 megabyte, fits any standard slot in a IIGS, IIe or II+.

from only £128.00

Contact Cirtech for full information on these exciting products and details of special trade-in/trade-up offers available.

(Prices exclude VAT)

CIRTECH (UK) LIMITED, Currie Road Industrial Estate, Galashiels
Selkirkshire, Scotland, TD1 2BP

Telephone (0896) 57790

Telex 265871 (Attn. 84:CPD001)-Telecom Gold

Source Mailbox-AAH555



From Page 12

actual repeat bars can be entered and the number of repeats can then be changed.

Unlike the Music Construction Kit where the note is sounded only when it is placed, The Music Studio sounds the note every time the pointer is moved over the score which can become very annoying. However, in the Option menu there is a 'toggle' to turn this off. The Options menu contains a number of useful options, the main one being Design Instrument. When selected, the score disappears and is replaced with a screen displaying an envelope generator. Various qualities of the current instrument can be altered, the basic shape of the instruments sound for example or you could add Vibrato or even, by cleverly altering the shape of the sound, add echo. There is also the ability to change the stereo channel you wish the instrument to sound from, and all the changes can be reversed before the instrument is saved.

Another feature that appears in the Options Menu is the Midi Parameters Screen. On this screen, it is possible to specify and alter up to fifteen midi channels and define which preset instruments on the midi device to use. The system is configured primarily for the Casio CZ101 synthesizer and a number of demo songs use this facility.

A feature that I had not seen on any package before is one labeled Tracks. This option allows you to isolate one or more instruments or sound effects in a song. If, for example, you are creating a complicated score and you want to work on the percussion section separately, without listening to the other instruments, you can assign the percussion to a track by itself and then turn off all the other tracks so that you see and hear only the percussion. This feature also allows you to place the same note from two different instruments without erasing the original note.

This is alright for people who understand music notation but what about the people who can't tell the difference between a quaver and a demi-semiquaver? Easy, click on the center of the menu bar at the top of the screen and the screen will go blank and

the main composing screen will be replaced with a Music PaintBox Screen. In the paintbox, gone are all the musical notation rests and ties and they are replaced with fifteen coloured blobs which refer to the instruments and five blocks of differing lengths. These blocks refer to the length of the note. The upper half of the screen is taken up entirely with a large blank musical score on which it is possible to paint the music. So people can place the coloured blocks roughly on the score, hear what they sound like, move or alter them and not have to worry about the notation at all.

There are two methods of listening to the music. One icon has an ear on it which plays the entire piece without scrolling the score. The other is called a running note which will either play the whole piece or if a block has been highlighted then it will play just the highlighted area. If the music is played using the running note, the music score scrolls while it plays.

What about the sound that it produces? The sound files contain fifteen instruments and the basic program comes with four files, Jazz, Rock, Classical and Voices. Once loaded, the system holds the fifteen in memory so that each one can be accessed immediately without having to go to the disk to retrieve them. The range of instruments that can be accessed is superb. There are electric guitars to whole drum kits, cellos to clarinets, and the last sound file, Voices, contains sampled phrases. One of the demo songs given with the system uses the Voices sound file, and it sounds like a take off of the Swingle Singers. The system comes with about twenty five demo songs that show off the system to the full. These range from classical pieces to a country number, A long rock piece to a swinging jazz song. Most of the demos are very good but the Music Construction Kit's Pachelbel Cannon is much better than the one in provided with The Music Studio.

The documentation provided with The Music Studio is 120 pages long and it covers all the functions that the system can provide. Also, a quick reference card is provided to enable the user

info

Product : Music Construction Kit
Publisher : Electronic Arts
Available from :

MGA MicroSystems
Bidmuthin Technologies
Apple Dealers

Price : £14.95 (Apple //)
£29.95 (//gs)

Value : ★★★★★
Performance : ★★★★★
Documentation : ★★★★★

info

Product : The Music Studio
Publisher : Activision
Available from :

MGA MicroSystems
Bidmuthin Technologies
Apple Dealers

Price : £ 87.95

Value : ★★★★★
Performance : ★★★★★
Documentation : ★★★★★

to discover want any function means without having to thumb through the manual.

With these packages I have gained considerable musical knowledge and, more importantly I feel, thoroughly enjoyed so doing. The system that I use comprises a pair of BOSE Roommate speakers connected to an Apple //GS. These speakers really enhance the system performance and are highly recommended for serious musical work. I heartily recommend all school music teachers to test drive one of these packages and I will guarantee that they will become addicted.

The Music Studio and The Music Construction Kit are both excellent packages. If you are looking for ease of use and a more professional appearance choose the Music Construction Set.

If you are seeking more experimental facilities such as variable envelope parameters and greater

SOUND ON TWO - A Comparison Of Features

GENERAL	TMCS	TMCS	TMS
Compatibility	Apple //	Apple //gs	Apple //gs
Disk Format	5.25 Inch	3.5 Inch	3.5 Inch
Copy Protection	Yes	Yes	Yes
Memory Requirements	48K	256K	512K
Input Devices	Keyboard Joystick Koalapad Mouse	Mouse	Mouse
Special Hardware	None	None	RGB
MIDI Support	N.A.	Yes	Yes
Printers Supported	ImageWriter [1]	ImageWriter	ImageWriter
Sound Cards Supported	Mockingboard Echo + Cricket	SuperSonic	SuperSonic

LIMITS

Note Range	5 Octaves	8 Octaves	8 Octaves
Pre-Programmed Instruments	8	34	60
Instruments per Song	2	2	15

FEATURES

Key Signature Selection	Yes	Yes	Yes
Multiple Key Signatures within a song	Yes	No	No
Time Signatures Selection	4	7	7 [7]
Whole through 30-Second notes	Yes	Yes	Yes
Whole through 30-Second rests	Yes	Yes	Yes
Accidentals	Yes	Yes	Yes
Double Sharps	No	Yes	No
Double Flats	No	Yes	No
Dotted Notes	Yes	Yes	Yes
Triplets	No	Yes	Yes
Quintuplets	No	Yes	No
Accents	No	No	Yes
Ties	Yes	Yes	Yes
Chords	Yes	Yes [6]	Yes [6]
Repeats	No	No	Yes
Number of Repeats	No	No	Yes

Stem Direction	Yes	Yes	No
Lyrics	No	No	Yes
Tempo Control	Yes	Yes	Yes
Volume Control	Yes	Yes	Yes
Variable length measures	No	No	Yes

EDITING OPTIONS

Copy A Block	Yes [2]	Yes	Yes
Move A Block	Yes [2]	Yes [2]	Yes
Delete A Block	Yes [3]	Yes	Yes
Insert A Block	Yes [4]	Yes	Yes
Merge Two Blocks	No	Yes	No
Edit Selected Voice(s)	No	Yes	Yes
Transpose Up/Down A Step	Yes	Yes	Yes
Up/Down An Octave	Yes	Yes	Yes [8]
Swap Instruments In The Song	Yes	Yes	Yes
Design An Instruments	No	No	Yes

MISCELLANEOUS FEATURES

Print Sheet Music	Yes	Yes	Yes
Time Signature Check	Yes	Yes	No
Music Scrolls while Playing	Yes [5]	Yes	cs
Save/Load music from disk	Yes	Yes	Yes
Colour Coded Instruments	No	No	Yes

FOOTNOTES

[1] Also supports C. Itoh, Epson and Okidata.

[2] Via Cut and Paste.

[3] All Cut and Paste operations can only be done on full measures.

[4] By copying an empty measure and pasting it at the desired location.

[5] Only with a sound board.

[6] Up to fifteen notes.

[7] Time signature is only a reminder to the user. It doesn't affect the notes in any way.

[8] May be controlled from the instrument design panel.

Chameleon Software

multi-voicing capability then choose the Music Studio. Personally, I've brought both of them, and I eagerly await the release of the Apple //GS Deluxe Music Construction Set which should remove some of the restrictions the basic system has at present. I would also welcome a means of transferring music files between packages. Programmers please note !

The Music Studio requires 512K, RGB or a composite colour monitor, The Music Construction Kit (//GS) requires 256k and The Music Construction Kit (/ / Series) requires 48K, with joystick, mouse or Kernalpad being optional.

I thank John Gurr of MGA MicroSystems for kindly loaning me the review copies.

All the products I have reviewed are available from:
MGA MicroSystems
Pear Tree
Appledore
Kent TN26 2AR

Finally, I would be pleased to offer my favourite music files (predominately jazz) to anyone sending a disk and sae to me:-

Jonathan Scott,
 122 Madison Avenue,
 Philadelphia,
 Pennsylvania, U.S.A. 19106

And I would appreciate a reciprocal offer from any other enthusiast. Or Apple 2000 could collect all offerings in order to amass a complete disk-full for the disk library.

Jonathon Scott

Cuckoo Lane
Pinchbeck 0775 85481
Spalding
Lines
PE11 3XT
Lines open
9.00am to 9.00pm
Monday to Saturday

NEW LOWER PRICES!!

NEW		SECOND USER	
Macintosh Plus	£1200	Macintosh 512k, Mac+ KB, mouse,	
Macintosh SE Twin Disk	£1790	MacRite, MacPlus Manual	£650
Macintosh SE HD20	£2100	Lisa/Mac XL 10Mb Int. hard	
Macintosh II SD Mono	£2800	disk, mouse, MacWorks, 1Mb RAM	
Macintosh II HD40 Mono	£3400	and Pascal Workshop	£900
Macintosh II HD40 Colour	£3600	Apple //e 128k, 2dd, Monitor	
ImageWriter II	£ 365	and Parallel printer card	£ 350
ImageWriter LQ	£ 850	Disk II drive	£ 50
LaserWriter Plus	£2850	Disk II controller card	£ 15
ATI Turbo Laser		Microbuffer 32k Printer cards	£ 10
(Postscript)	£2600	Cirtech 280 //e	£ 20
Business Laser Printer		Cirtech Champion card & lead	£ 25
(General Computer)	£2400	Citizen MSP10E (inc 5 rbn)	£200
Walf Mt 5.25" 140k drive	£ 140	Juki 6100 Daisywheel (132col)	£150
Adobe Illustrator Mac	£ 340	Videomatic //w	£ 50
Adus PageMaker Mac	£ 350	Printrix 1.55 (shop collid)	£ 50
dBase Mac	£ 290	ProDataTech Ref Run (shop Sld)	£ 20
Turbo Pascal		Applewriter II (II+)	£ 10
(Barland) Mac	£ 49	Bard's Tale I	£ 10
Reflex Plus Mac	£ 119	Elite (Firebird)	£ 10
Ragtime 2 Mac	£ 360	Daisy Breakout 2400 Ext. Mem	
Presenta (Hayden)	£ 360	V21,V22,V22BIS,V23 ADEC	£750
MacDraft	£ 165	Print Shop Mac (Enhanced)	£ 10
Image Studio (Letraset)	£ 360		
Ready Set Go 4			
(Letraset)	£ 360		
Jazz Mac (Lotus)	£ 220		
Modern Jazz (Lotus)	£ 220		
Works Mac (Microsoft)	£ 199		
Word 3 Mac (Microsoft)	£ 199		
Excel Mac (Microsoft)	£ 199		
File Mac (Microsoft)	£ 99		

Many more second user items are available, just ring with your requirements to get the best deal!

Prices exclude VAT and postage, please ring for details and full list.

News Bits

Culled from our own Apple Orchard

Apple Europe restructures for the 1990's

Outside the US, Apple has divided into two separate operating units, Apple Pacific and Apple Europe. Apple Pacific will be headed up by former Apple UK Managing Director David Hancock. Hancock will be responsible for Canada, Australia, Japan and the emerging markets of the Pacific.

Apple TM Europe will be led by Michael Spindler, Vice President. The operation will be subdivided into four regions; France, Germany, Nordic and General European Area. The European headquarters are based in Paris which Apple recently announced would be its first regional research and development centre.

Claris TM appoints distributor gets managing director

Claris Corporation has appointed First Software as its exclusive distributor and has also announced that its managing Director will be Steve Johnson, presently education sales manager for Apple.

From Friday 6 May Apple will cease to take orders for Claris software and First Software will take over on Monday 9th May. Apple will fulfill its outstanding orders from stock and will then pass any existing stock to First Software. Technical support will be gradually handed over from Apple to First Software.

"Claris has invested more in the UK than in many other European countries" said Johnson, who joins Claris on May 30th.

"And so First Software and Claris can together offer a full marketing, sales and technical support package to dealers. I

hope you will find what we have to say interesting, and I look forward to continuing my relationship with many of you."

Claris is an Apple subsidiary which was launched earlier this year.

*Extracts from 'Agenda' The Apple Dealer News Bulletin
Apple Computer UK Ltd*

Apple Village for Dexpo '89 at Olympia

Over 30 stands at the next DEXPO Europe, in February 1989, will be devoted to an 'Apple-DEC Computing Centre', with third-party vendors exhibiting Macintosh to Digital connectivity products. This will be the largest display of such solutions ever mounted in Europe, and shows the growing popularity of this environment.

Commenting on the announcement, Jane Burley, DeskTop Communications marketing manager, said "The Apple-Digital alliance focussed attention on the work being undertaken by third party developers. Since then, more and more products have been announced which allow the Macintosh to operate seamlessly in a Digital environment. After August, when both companies will hold a joint developer's conference, we expect the market to grow further. Bringing together a number of these companies in a major European exhibition will give Digital users in business, government and education sectors the opportunity to see the quality and diversity of solutions available."


DEXPO Europe 89 will be held at Olympia 2, London from 28th February to 2nd March 1989.

Workshop 2000 Apple II Special Reporter Mike Davies

We have been receiving over the months complaints from Apple II users that we were not devoting enough time and space to their interests. With this in mind I set about organising a special Workshop just for the Apple II. I must admit I wondered how much support such an event would have. I am delighted to report that the workshop was a great success, with members attending from as far afield as Guernsey, Newcastle, Leeds, and Sheffield.

The Workshop was organised for Saturday April 16th at Bidmuthin Technologies Ltd, 214 Kenton Road, Harrow, Middx. In hind sight I should have published a map to guide you there as one or two of you had some difficulty locating the building. Next time remember it is above Waitrose, and there is a car park at the back. Anyway it did not mar the attendance which at the end of the day totalled 43 members and 11 non members. Some of the latter were in fact elapsed members whom I hope after this plus the promise of more activity on the Apple II front in forthcoming magazines will consider it worth while rejoining.

The day was based around two subjects. PC Transporter and AppleWorks Enhancements. Our thanks must go to Mark and Steve of Bidmuthin who worked solidly all day presenting these subjects, and also for the use of their showrooms. There never appeared to be a moment during the whole day when there was not a crowd around each demo. Our thanks also to Liz who worked wonders with the coffee machine and kept an endless supply of the brown nectar flowing all day.

Well that's the good news. The better news is that due to the success of this meeting it has been decided to hold another one in the Autumn. The subjects will be announced at a later date, but it appears there are a number of new items in the pipe line. Keep your eyes open for the announcement in a future issue of the magazine. 

- 1) **Problem: Omnis doesn't produce any output when a report is printed.**

Cause: The currently selected output device is not on line or improperly connected.

Solution: Use the Chooser to select the correct printer and serial port, after checking the printer status and connections.

- 2) **Problem: When printing to an ImageWriter, system reports look distorted and weird.**

Cause: Omnis prints system reports in Monaco 9. Because the Mac is unable to find that size font, it scales down from Monaco 12.

Solution: Ensure that your system file contains Monaco 9. If you do find it there, a font attached to Omnis itself might be the culprit. Launch Font/DA mover, and while holding down the Option key, click the right-hand Open button. You will see Omnis as one of the files you can open when you get to the correct folder. Select Omnis and

remove the Monaco 12 font if it is attached. Quit and try it.

- 3) **Problem: The temporary variables #50 through #60 lose their values.**

Cause: At the beginning of every report Omnis zeroes #50 to #59 and sets #60 to the number of records in the report's main file. (This allows for convenient totalling within a report.)

Solution: Do not store any important values (like current screen number) in variables above #50, because they will be destroyed when a report is printed. #11 through #49 are not changed by printing and are independent of #P.

- 4) **Problem: The values in temporary variables #S1 to #S5 and #1 to #10 change mid-way through a report.**

Cause: The page number variable (#P) in reports is the same variable that controls the selection of the current row in the array. Because the above-mentioned temporary fields are part of the standard array, a change in #P changes

Selected Omnis Problems of the Month

Prepared by
Blyth Software Support

their identity (and values).

Solution: Store any global numeric values you need to access in #11 through #49, and any global string values in fields belonging to a constants-type file or dummy file.

- 5) **Problem: Omnis truncates values typed into some of the temporary fields #S1 to #S5.**

Cause: These fields are not of equal length.

Solution: Remember that #S1 has a length of 79 characters, #S2 has a length of 40, #S3 can contain 20 characters, and #S4 and #S5 can only hold 10 characters each. 🍏

A solution for everyone . . .

We offer the full range of Apple II and Macintosh 512K, Plus, SE and II computers, accessories and software from individual items to sophisticated systems for the latest applications in desk top publishing or computer aided design at competitive prices.

Whatever your interests as a newcomer, enthusiast, professional, small business or large public company, we can provide new and used equipment, with excellent service, reliability and after-sales maintenance, training and support.

With such a wide range of Apple Macintosh equipment and applications, why not call us to discuss your requirements.

ROGER D'ARCY COMPUTERS

Tel.: Oxford (0865) 728787



GAZELLE

Communications Software For The Apple //

- Still priced at £86.25, inc. VAT & postage
- Viewdata and Ascii modes

Latest New Features

- Binary II - Automatic packing/unpacking of files
- Viewdata Font Editor - create your own Prestel like displays
- Viewdata File Processor - strip those nasty control codes out to provide a perfect text/Appleworks file
- Xmodem enhancements - now uses both checksum and CRC protocols

Orders or enquiries to:
KOLOUR SOFTWARE LTD.

225, Old Basing
Basingstoke, Hampshire
RG24 0NP
Tel: 0256 331111

(State GS, //c or //e)

The Magic of PROSEL

A Review of a PROgram SElector by Dave Ward

To most Apple // users the change to ProDOS was welcomed because it contained most of the enhancements missing from the earlier operating system Dos 3.3. One snag though, is that file names are known as a 'path names' under ProDOS and files can be hidden in a directory in a directory etc. making such pathnames very difficult to remember. Wouldn't it be nice to be able to quickly move from one application to another without having to memorise long pathnames.

For instance the authors of ProDOS obligingly arranged that on correctly quitting from ProDOS applications a routine would be run to enable you to enter the new 'pathname' without having to re-boot or switch off the machine. Unfortunately it is one of the least user-friendly procedures I have come across. When you quit the screen blanks to 40 column mode and you see the following legend with a flashing cursor beneath:

ENTER PREFIX (PRESS 'RETURN' TO ACCEPT)

If you can remember the PREFIX you are then given a further blank screen with this legend at the top:

ENTER PATHNAME OF NEXT APPLICATION

If you cannot remember all this, which is highly likely, you can only exit using a cold re-boot or switching the machine off then on again.

ProSel, written by Glen Bredon (author of the famous Merlin assembler) makes the running of your ProDOS applications a breeze. When you quit a ProDOS application ProSel is run instead of the normal quit routine and instead of a blank screen you get

a menu of your applications.

Prosel Editor	AppleWorks	Check disk (auto)
Block Editor	Plan	Volume copy
Information Desk	MERLIN 16	Simp demo
File (cat.doctor)	SBI calculations	File finder
Utilities directory	Applesoft BASIC	Plan tester
Copy II plus	Restore	Backup

/PROSELU - Application listing
Select mode - ESC for main menu 1-May-88 9:56

The above is the main menu screen of PROSEL which appears when you quit a ProDOS application. As you might have guessed PROSEL is a selection menu for launching ProDOS programs on all Apple // computers although it looks best on the enhanced Apple //e, Apple //c and Apple IIGs computers. The eighteen names at the top of the screen are titles of applications that you may wish to use. The highlighted title runs a particular application when the return key is pressed or the mouse button clicked. The application must be the path to a ProDOS system file or a directory which contains other directories or ProDOS system files. Your applications may be on a hard disk, RAM disk, ROM disk, 3.5" disk, 5.25" diskette or any other ProDOS compatible drive. You'll find a 5.25" (143K) diskette rather claustrophobic, though.

You can choose a title using the mouse or cursor keys and also, very conveniently, by simply pressing the first character of the title you want. For instance if you want AppleWorks from the above screen just press A and it will be instantly highlighted. If you were to press A again you would highlight Applesoft BASIC. Since there are no more titles beginning with A pressing A again would take you to Prosel Editor as this is the first

title on the screen.

An immediate problem comes to mind - what happens if a particular application you wish to run is not on the menu screen of ProSEL. Well there are three ways to solve this problem :-


1) If the application is in a directory title on the screen just choose it just like you would an application and all the system files and directories will be shown on the screen just like the main ProSEL menu. You can choose these titles in the same way and system files will be run and guess what happens when you choose another directory! Although the menu looks like the one above there are some differences such as all the SYSTEM files are in uppercase whereas the directories are in lowercase.

2) If the application is on another disk simply place the disk in the drive and then press the slot number followed by the drive number and all the system files and directory files will be shown on the screen just as if you had chosen a directory from the main ProSEL screen. For example a diskette in slot 5 drive 1 just press 51 and the menu will quickly appear.

3) Unless you've got 54 entries on the ProSEL menu you could create a new one to run this new application, but we'll come back to this later.

You can quite easily have applications on other diskettes but you must remember to insert the correct diskette as the only error you will get is that the particular pathname cannot be found. This is usually sufficient to prompt one to insert the correct diskette and start over.

If an application can't be found the screen clears and a message in the bottom left-hand corner informs one of that. This could probably be a little more user-friendly but at least it alerts one to the problem which is due to the pathname cannot be found on any of the volumes on-line. Either the pathname specification is wrong or the required diskette is not on-line.

ProSEL works by altering the QUIT code within ProDOS so that when you correctly quit a ProDOS application ProSEL will be re-loaded and the ProSEL menu will re-appear on the screen. 

You may have up to 54 titles on a ProSel screen in 80 column mode. There is a 40 column mode by this is less flexible and one would be advised to use the 80 column mode if at all possible. Each title on the screen actually consists of 4 parts (the other three being hidden) which can be edited using an internal editor accessed from the ProSel menu screen by pressing the ESC key. As might be expected this is a very simple editor but works quite well. Entries added or emended by this editor are placed in alphabetical order on the screen. The external editor is far more sophisticated and allows one to order the screen titles to ones desire. I always keep a copy of the external editor PROSEL.ED on my main ProSel diskette as it only takes up a few blocks. When you invoke the external editor the screen is almost the same except that choosing a highlighted title produces the following screen :-

PROSEL EDITOR

```
Screen title:
  SBI calculations
Prefix
  RAM7/SBI
Application path:
  ?BASIC.SYSTEM
Startup:
```

^D del rgt, DEL del lft, ^Q del to end, ^B begin,
^N end, ^R replace
ESC to exit. TAB toggles: Insert mode active

The above screen was chosen by highlighting the title SBI and then pressing return key. It runs an Applesoft BASIC program STARTUP on a RAM disk /RAM7/SBI. With ProSel you'll only need one copy of BASIC.SYSTEM on one of the volumes to be able to run any Applesoft program anywhere! If you are using BASIC.SYSTEM version 1.1 or later the name of the Applesoft program does not even have to be STARTUP.

The title can be up to 24 alphabetical characters in length.

A nice feature that works on all machines may give Apple IIgs users a bit of a fright the first time it happens! After 5 minutes or so the screen blanks to black! to prevent 'burn-in'. The manual

states this feature but one might expect the colour screen on an Apple IIgs to blank to the border and background colours rather than all black. I thought that my monitor had died, for a few minutes, the first time it happened!

ProSel may be purchased from Glen Bredon by mail order, only at a cost of \$40 and those ordering from outside North America will have to pay an extra \$5 for shipping. ProSel consists of three sides of two 5.25" diskettes all of

which are copyable. The documentation is contained on one of the diskettes and runs to 55 pages when printed! The manual has a table of contents on the first page (no index) the other 54 pages describe ProSel and its utilities very well. When you boot the main diskette /FLOPPY you enter the installation program which after a few pages of text describing the utilities and copyright notice falls into the main installation menu below :-

Welcome to PROSEL.

*** The best and most complete set of disk utilities you can buy. ***

INSTALLATION

The installation program will automatically check for possible problems and will install PROSEL and the disk utilities on a ProDOS volume of your choosing. Although it may rename some files, it will do nothing reversible.

The revision installation revises only the files PROSEL.SYSTEM and PROSEL; other revised files should be copied using CAT.DOCTOR.

Please press a number key to select an option:

- 0 - Exit to Applesoft BASIC
- 1 - Install a new PROSEL on a ProDOS volume of your choice.
- 2 - Install a revision over an old PROSEL version.
- 3 - Print documentation.
- 4 - Copy this disk.
- 5 - Return to start of this program.

Select 0-5:

Although you can prepare your own ProSel diskettes you would be advised in the first instance to use the installation option from the above menu and then make any changes to the main ProSel screen afterwards. PROSEL actually launches SYSTEM files so if your application is a SYSTEM file just set up the path using the editor and PROSEL will run it. Likewise larger systems such as AppleWorks startup from a SYSTEM file, in this case /APLWORKS.SYSTEM so you just specify that the pathname points to /APLWORKS.SYSTEM and PROSEL will run AppleWorks! It is that easy. Applesoft programs, as we have seen, can be RUN through BASIC.SYSTEM but BINARY or TEXT files will be a little more tricky. All the necessary information to RUN your ProDOS applications is given in the manual.

You may have noticed that Glen Bredon chose that PROSEL be a

text orientated utility. This was a wise decision since the system takes up less than 8K bytes on a disk and is very quick and easy to use. Graphic orientated systems are far less flexible and require at least 100K bytes of disk space. PROSEL beats them hands down.

For the price of the package one could be forgiven for thinking that's your lot. ProSel, however, is accompanied by a plethora of support utilities some of the more important will be described below:-

UNI.FORMAT - is a utility to format 3.5" diskettes and has the additional facility of allowing you to reserve 25% of the disk as a Dos 3.3 area. There is quite a bit of information in the manual to enable one to run many old DOS 3.3 programs from the Unidisk 3.5".

FORMAT.35 - you can format 5.25" diskettes with this utility. Since some 5.25" drives

From Page 19

can access more than 35 tracks this utility allows you to format ProDOS diskettes with more tracks. For instance some drives will be able to read 40 tracks which could give you an extra 20K bytes of storage!

CAT.DOCTOR - This utility is not as bad as it sounds! Actually it is a utility to manipulate files in almost every conceivable way! One of the nice features is the ability to copy only those files that have been changed, which one would use as an intelligent backup. To do this CAT.DOCTOR compares the modification dates of the source and target files and only copies those where the source has a later modification date. This is great if you have a large RAMdisk or Harddisk with some files to update from time-to-time. The latest version 6.0 has two menus which are shown below to indicate the scope of this utility:

CAT DOCTOR 6.0
Copyright 1988 by Glen Bredon

Q-Quit
X-Catalog
C-Copy files
T-Type files
L-Lock files
U-Unlock files
D-Delete files
E-Exhume files
V-Verify files
R-Rename files
TAB-Menu change
S-Sort directory
F-Change file date
/-Create directory
N-Show volume names
B-Toggle bell, now: ON
P-Toggle prompting, now: ON

CAT DOCTOR 6.0
Copyright 1988 by Glen Bredon

TAB-Main Menu
Q-Quit program
M-Move files
F-Format a disk
W-Wipe a volume
C-Compare directories
D-Disable unused devices

On entry the first item, in the top menu, Q-Quit is highlighted. You can choose others in that menu using the mouse, the cursor keys or by pressing the first character.

The item chosen is executed by pressing return or clicking the mouse button. The second menu is chosen by executing the TAB item. This second menu is only available if the file CD.EXT is in the same directory as CAT.DOCTOR. If the second menu is unavailable the TAB item is replaced by W-Wipe a volume. Note that this utility only runs on Apple //c, Apple //e (enhanced) and Apple IIs computers.

The disable unused devices is quite useful if you don't have a disk in a disk II drive. Unfortunately (bug?) the only apparent way of re-enabling the drive is to reboot ProDOS. Another is

SCAVENGE - this is a program that when run will disable any drive that does not have a diskette therein. If, however, you run it again and it finds a diskette in the previously disabled drive it re-enables it.

BLOCK.WARDEN - This utility allows one to perform surgery on any ProDOS block. You can refer to blocks by their absolute number on the disk or relatively in any type of file. All-in-all this is an excellent utility with all the editing commands you will require and there is a nice feature to show all the attributes of any ProDOS file.

The display underneath shows what the main screen looks like:

INFO.DESK - With this utility you get four options which are as follows:

- 1> Catalog - Lists all the file on a directory with all the files in sub-directories shown indented.
- 2> Block usage by files.
- 3> File usage by blocks.
- 4> Bit map of the volume.

The data may be sent to screen, printer or a disk file.

VOLUME.COPY - This simply copies whole 3.5" or 5.25" diskettes. There is a special Apple IIs version that borrows any free memory to copy as much of the disk as possible to reduce swapping.

BEACH.COMBER - Users of large disks such as hard disks may find after much use that applications load or run slower. This can be due to files having their blocks scattered all over the disk thus causing the head to move from track to track wasting time. BEACH COMBER optimises the way files and directories are stored so that loading time is reduced to a minimum. The manual recommends that you make a backup before proceeding as an interruption may trash the disk.

FILE.FINDER - This utility will search every directory on a volume to find a file name that you request. Very useful if you forget the full pathname!

Block Warden

```
Block: $0002 (2)   Volume name: IIGSML   Tuesday 3-May-88 9:25
Prefix: /IIGSML/
Byte $000400
(c)      00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F   R/W mode
1988
000: 00 00 03 00 F6 49 49 47 53 4D 4C 00 00 00 00 00 ...VIIGSML....
b 010: 00 00 00 00 00 00 00 00 00 00 00 00 47 af 29 10 .....G/.
B y 020: 04 00 C3 27 0D 15 00 06 00 40 06 D4 43 48 2E 31 ..C'....@.TCH.1
L 030: 00 00 00 00 00 00 00 00 00 00 00 00 01 07 00 01 00 .....
O G 040: 00 02 00 47 AF 29 10 04 00 E3 00 00 47 AF 2B 10 ...G/)...G/+..
C 050: 02 00 D4 43 48 2E 32 00 00 00 00 00 00 00 00 00 ..TCH.2.....
K e 060: 00 00 0f 17 00 01 00 00 02 00 47 AF 2B 10 04 00 .....G/+...
n 070: E3 00 00 47 AF 2B 10 02 00 D4 43 48 2E 33 00 00 ..c.G/+...TCH.3..
W 080: 00 00 00 00 00 00 00 00 0f 19 00 01 00 00 02 .....
A B 090: 00 47 AF 2B 10 04 00 E3 00 00 47 AF 2B 10 02 00 ..G/+...G/+...
R r 0A0: D4 43 48 2E 34 00 00 00 00 00 00 00 00 00 00 ..TCH.4.....
D e 0B0: 0f 20 00 01 00 00 02 00 47 AF 2C 10 04 00 E3 00 ..G/)...c..
E d 0C0: 00 47 AF 2D 10 02 00 D4 43 48 2E 35 00 00 00 00 ..G/)...TCH.5...
N o 0D0: 00 00 00 00 00 00 0f 32 00 01 00 00 02 00 47 .....2...G
n 0E0: AF 2D 10 04 00 E3 00 00 47 AF 2E 10 02 00 D4 43 /...c.G/)...TC
0F0: 48 2E 36 00 00 00 00 00 00 00 00 00 00 0f 3A ..H.6.....
```

Arrows change blocks, [Q]uit, [E]dit, [R]ead, [W]rite, ^=index list, \=flip.
[D]ump, [*]list, [C]hange device, [P]refix, [I]nfo on file, [F]ollow file.

BACKUP/RESTORE - These two utilities let you backup your hard disk or RAM disk onto 5.25" or 3.5" diskettes. For speed in backing-up your diskettes should be formatted and named BACKUP.01 etc. You will be informed of the number of diskettes you will require and backup/restore is very fast. A 1 megabyte card can, for instance, be backed-up on seven 5.25" floppies, on one drive, in around 3 minutes without rushing. Backup disks are an image and cannot be used directly.

There are also utilities for automatically loading RAM drives on bootup.

RECOVER - Just in case your main disk goes down this program will let you RECOVER a file from your backup diskettes without having to do the whole RESTORE.

MR.FIXIT - This utility helps one to restore damaged diskettes.

QUEUEP - With this program you can load a queue of programs one after another automatically,

even with a time delay.

There are many other utilities on the PROSEL diskettes such as special versions of some utilities for Apple II plus users with videoterm 80 column cards etc. There is even a utility PARK.HEADS which allows one to park the head on a SIDER hard disk so that it may be transported. Why? Well Glen Bredon has SIDER, of course. From this, other utilities and reading the manual one may come to the conclusion that the prime purpose behind PROSEL package is that it was written by a perfectionist for his own use, fortunately he has made it available for us all and at a rather modest price.

Well I almost forgot to mention that Glen Bredon has even directly addressed the distinct lack of user friendliness of ProDOS referred to at the start of this article. When you boot-up one of his diskettes you will see that the version of ProDOS is 1.4B. He has patched this and has made it very user friendly. When you QUIT a ProDOS (1.4B) application all the

volumes found on-line will be shown, by name, in inverse on the screen which you can choose by moving the cursor and pressing return. Next all the SYStem files found on the volume you have chosen will be shown. When you choose one it will be launched.

Dave Ward



info

Product : ProSel
Auhtor: Glen Bredon
Available from :
 Glen Bredon
 521 State Road
 Princeton
 NJ 08540 USA
Price : \$40 (\$5 foreign post)
 only available mail
 order (no credit cards)

Value : ★★★★★
Performance : ★★★★★
Documentation : ★★★★★

CONCLUSION

ProSel is an excellent way of organising your ProDOS based utilities and applications so that you can switch between them with the greatest of ease, at will. In particular the backup facility for amended files only will be a boon to hard disk and RAMdisk users. I use ProSel all the time, now, and have converted many of the old Dos 3.3 applications, games and utilities that I use a lot, to ProDOS SYStem files.

The Members Small Ads

WANTED to borrow
 NIBBLE Volume 8 Number 12
 (my issue lost in Xmas post!)
Phone Dave Pearce 01223 895170

FOR SALE

Apple II+ 64K with following cards: Z80 column card, parallel printer card £150.00 o.n.o.
 Apple 140K single disc drive and controller card £50.00 o.n.o.
 EICON Research twin 1.2 Mb disc drive for //e, little used, cost £1200.00 new £175.00 to clear
 Microtech 7-pin dot matrix printer, inc lead £45.00

Software. JARMAN integrated accounts for II+ or //e, cost £1500.00, complete with manuals £200.00

OR £550.00 o.n.o. the lot

Tel 01223 895170 after 6 pm

For Sale

512K Macintosh
 with 400K External Drive

ICE 20Mb Hard Disk
 (HFS and MFS Compatible)
 with separate Multiplexer

ICE Matchbox

allowing access to the hard disk
 via AppleTalk (no further networking
 utilities required)

All necessary cards and cables allowing any combination of Macintoshes (via the Matchbox) and/or Apple II's (via the multiplexer) to share the hard disk simultaneously!

Complete set of Manuals for all the hardware.

This is an exceptionally practical and flexible set-up, ideal for the smaller business, either as an entry level configuration or as a low cost expansion alternative

£1,495 complete

(private sale - no VAT)

Telephone: (01) 265 6539

Algol

The first Structured Language

Dave Miller continues his series with the first of three articles on Algol

In 1960 a group of computer scientists, supported by the International Standards Organisation, released a report on a new computer language. The criteria for the language were that it be independent of the computer on which it is running, flexible and problem oriented (i.e. the language is adapted to the problem rather than vice versa). This new language was christened ALGOL-60, from either the phrase "Algorithmic Language" or the phrase "Algebraical Oriented Language".

The resultant language represented the greatest single advance in computer language design whose basic precepts are still used in the newest languages today.

In this instalment I shall try to convey the most important principles of ALGOL and of all of the structured languages developed either directly or indirectly from ALGOL. Figure 1 lists the ALGOL family tree. The most well-known of ALGOL's offspring are listed although there are several others.

CORAL-66 draws not only from FORTRAN but also from a language called Jovial.

Surprisingly ALGOL-68, a later refinement of ALGOL-60, is sufficiently different from ALGOL-60 to be considered a separate language. Indeed CORAL-66 bears considerably more resemblance to ALGOL-60 than does ALGOL-68!

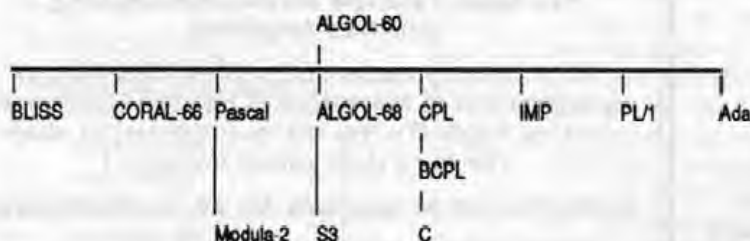
ALGOL offered four major advances over the existing mainstream computer languages extant in 1960.

1) Free format source files

Languages like FORTRAN and COBOL were designed to be entered into the computer via punched cards. Thus the source code was 'fixed format'. This means that certain columns had specific, predefined uses such as in FORTRAN, where column six is used to indicate a continuation line for a program statement which is too long to be placed on one program line.

ALGOL dispenses with all this.

Figure 1: The ALGOL Family Tree



Some of the languages, like Pascal, are developed directly from ALGOL-60 and share many common features. Others, like CORAL-66, PL/1 and Ada, are based upon ALGOL but draw heavily from other sources; for example Ada also shares many features of FORTRAN and

The language assumes nothing about the format of the source file. This causes one problem: fixed format languages usually have the limitation that only one program statement can be on one line of text. ALGOL can not assume this so a special 'statement separator' has to be employed to indi-

cate the end of one statement and the beginning of another. ALGOL adopts the semicolon as the statement separator.

Another problem is the parsing of keywords and how they are distinguished from variable names. COBOL uses the space as a delimiter but ALGOL, being free format, has to adopt a 'keyword delimiter' (in fact ALGOL completely ignores spaces in the source file which causes some unusual problems when spaces are to be included in text strings). The single quotation mark, (called a 'prime' in ALGOL parlance), is used to delimit keywords.

An example of valid ALGOL statements showing the use of semicolons and primes is:

```
a := 2; if d > 20 then b := b * a else b := a
```

Actually, primes were not the first keyword delimiter. When the language was being drawn up, a standard was adopted which stated that all keywords should be printed in bold type. This is often still adhered to when ALGOL programs are printed in text books or in research papers.

Since most computers can not handle bold type it was suggested that keywords be underlined since this is a method adopted by typesetters to indicate that words are to be emboldened.

Underlining keywords was okay for formal reports and research papers but was not very practical when entering code (imagine entering "<begin underline>begin<end underline>" as "b", backspace, "_", "e", backspace, "_", "g", backspace, "...").

Two solutions were proposed. One stated that all keywords should be enclosed in primes. The other stated that all keywords should be written in upper case and all variable names should be written in lower case. Both solutions can be used for most implementations of ALGOL but standard ALGOL only recognises the former. This has the advantage of allowing both upper and lower case letters to be used for variable names and keywords if required by the programmer.

2) Compound statements

The compound statement is one of the single most important

advances in language design. It allows a language to be very flexible yet still have a simple structure. Cast your minds back, if you will to October's edition of this illustrious journal. In that edition you will find part three of this series on FORTRAN (own up those who did not read it!). You will see FORTRAN's ludicrously complex IF statements: there are three individual types of IF statement. The compound statement allows only one type of IF statement in ALGOL to perform all of the different functions of the three IF statements of FORTRAN.

A compound statement is a series of statements delimited by special beginning and end markers which is taken as being one indivisible block of code. Thus:

```
'begin'
  'comment' all of these statements are regarded as one megastatement;
  a := 1;
  b := 2;
  c := 4;
  d := 10
'end';
```

Note the use of the semicolon. It separates statements from each other. The keywords 'begin' and 'end' are not regarded as statements so there is no semicolon between 'begin' and the comment statement and between the assignment to "d" and 'end'. There is a semicolon after 'end' if another statement follows the compound statement because the whole compound statement, delimited by 'begin' and 'end', is regarded as a single statement.

The benefit of compound statements is that they allow code to be easily broken into discrete blocks of code. Take the example of an IF statement. (See Figure 2)

3) Blocks and dynamic variable allocation

The compound statement discussed above can have one very powerful addition. In ALGOL, variables can be declared inside a compound statement and be made local to that compound statement. This means that variables defined inside a compound statement are accessible only when the compound statement is actually being executed. When

Figure 2:

```
'if' a > 2 'then'
  'begin'

    'comment' all these statements are executed if a > 2;
    a := 2;
    writetext ((A_is_greater_than_2));
    'comment' note the use of " " in the above statement to indicate a space in the text
      output by procedure print - note the use of braces to delimit a string parameter;
    newline (1);
    'comment' one new line

  'end'
'else'
  'begin'

    'comment' these are done if a <= 2;
    writetext ((A_is_less_than_or_equal_to_2));
    newline (1);
    less_than_2 := true;
    'comment' note the spaces in the above variable's name; allowable but not
      recommended!

  'end';
```

this occurs the compound statement is referred to as a block.

A block is simply a compound statement with some local variable definitions.

The implication here is that 'dynamic variable allocation' is performed. Languages like FORTRAN and COBOL perform 'static variable allocation'. This is where the variables to be used are defined when the program is compiled. During execution the variables' locations in memory do not change but remain static during the program's run.

Dynamic variable allocation allows variables to be defined (and undefined) while the program is running. This has a twofold advantage: it allows memory space to be utilised efficiently because variables which are no longer needed can be undefined, thus freeing their associated memory. It also allows for more flexible programming. Many of us have had the need to do something like the following:

```
10 REM Enter a number & demension an
   array to the number's value
20 INPUT "Enter the number of data
   wanted: ", N
30 DIM A%(N)
40 FOR I = 1 TO N: A%(I) = I: NEXT
50 FOR I = 1 TO N STEP 2: PRINT A%(I) + A%
   (I + 1): NEXT
```

Languages adopting static variable allocation can not dimension an array during a program's execution because all variable allocation is performed when the program is compiled.

The above BASIC fragment can be coded in ALGOL. (See Figure 3)

Whereas BASIC can only define new variables, ALGOL also undefines them. That is why variables "a" and "i" are not accessible once the block in which they are defined is exited.

Dynamic allocation does, though, have two disadvantages. One is that all this extra processing can take up quite a considerable amount of processor time. The early ALGOL compilers were very inefficient but advances in both compiler design and in the hardware available have increased efficiency.

The second disadvantage is that this allocation/deallocation scheme is 'stack based'. This means that if variables are defined in individual blocks in the following sequence: a, b, c, d, e then they can be undefined ONLY IN THE REVERSE ORDER: e, d, c, b, a.

This is because inner blocks can exist only completely inside outer blocks:

Figure 3:

```
'begin'

'integer' n;
'comment' define "n" as being a local integer variable;

writetext ((Enter_the_number_of_data_wanted: ));
n := read;
'comment' read in the number of data;

'begin'

'integer' i;
'integer' array a [1:n];
'comment' define a NESTED block statement with a local integer array "a"
           whose size is defined by the value of "n"- note that variables
           defined in OUTER blocks (such as "n") are accessible in INNER
           blocks but variables defined in INNER blocks (such as "a") are
           NOT accessible in OUTER blocks;

'for' i := 1 'step' 1 'until' n 'do' a [i] := i;
'comment' note the structure of the above "FOR statement-" also note
           that array indices are placed in square brackets;

'for' i := 1 'step' 2 'until' n 'do'
'begin'

  print (a [i] + a [i + i], 2, 0);
  'comment' print out the value (the values "2" and "0" indicate that
           the number is to be placed into two characters only and
           that there is no fractional part (the number is integer);
  newline (1)

'end'

'comment' variables "a" and "i" do not exist here because we are outside
           of the above block

'end';
```

From Page 23

This is allowable:

```
'begin' 'comment' block a;
  'begin' 'comment' block b;
    'begin' 'comment' block c;
      'begin' 'comment' block d;
        'begin' 'comment' block e;
          'end'
        'end'
      'end'
    'end'
  'end'
'end'
```

Each of the inner blocks is terminated inside the outer blocks.

This is not allowed:

```
'begin' 'comment' block a;
  'begin' 'comment' block b;
    'begin' 'comment' block c;
      'begin' 'comment' block d;
        'begin' 'comment' block e;
          'end'
        'end'
      'end'
    'end'
  'end'
'end'
```

Inner blocks can not be terminated outside any of the outer blocks.

4. Recursion

To users of non-recursive languages, the idea of recursion sometimes seems very strange. Something that is recursive can be defined in terms of itself. This might sound like jibberish but consider the compound and block statements discussed above. ALGOL defines a statement as being any single executable instruction, any single variable definition or a comment.

A compound statement, which is group of individual statements regarded as a whole, is also regarded as a single statement. Thus it is possible that a compound statement can consist of several inner compound statements, each with their own inner

compound statements and each being regarded as a single statement. The following syntax diagrams should help to explain. The syntax diagrams are in Backus-Naur Format (BNF) which is a structured way of defining a language's syntax. The symbol "==" means "is defined by" and defines the identifier to its left in terms of the symbol(s) to its right. The vertical bar

"|" indicates several possible options and is read as "or" so:

fruit == apple | banana | plum

is read as:

"fruit is defined by apple or banana or plum"

The simplified ALGOL syntax for statements is:

block ==

'begin' variable_definitions ;
statement_list 'end'

compound_statement ==

'begin' statement_list 'end'

statement_list ==

simple_statement | simple_statement ;
statement_list

simple_statement ==

assignment_statement |
goto_statement |
procedure_call |
compound_statement |
block |
for_statement |
if_statement |
comment_statement |
dummy_statement

Note that in the above definition both 'block' and 'compound_statement' are defined in terms of 'statement_list' which is, in turn, defined in terms of 'simple_statement'. The latter is defined in terms of 'block' and 'compound_statement'. Note also that 'statement_list' is not only defined in terms of 'simple_statement', but is also defined as a 'simple_statement' followed by a semicolon followed by a 'statement_list'.

Thus 'block', 'compound_statement' and 'statement_list' are all defined recursively because they are defined in terms of themselves. Think about it for a bit and it will begin to become clearer!

ALGOL is not only recursive in structure, as the above tries to show, but it is recursive in function. A procedure in ALGOL can call itself. Each invocation of a procedure has its own set of any local variables used and these are separate and distinct from the variables of any other invocation of any other procedure.

A recursive call operates in exactly the same manner as any other call. It just so happens that the routine being called is one which is already being executed at the time of invocation.

Recursion can be used to produce not only very elegant solutions to problems but it can also produce very efficient code. Sorting is one area where recursive algorithms have produced some of the most efficient code.

Examine the following recursive ALGOL-60 procedure called "writeint". It writes out an integer number to the output device and is invoked as follows:

(See Figure 4)

The four features covered are the main features not only of ALGOL but of those languages developed from ALGOL. Although features 1, 3 and 4 were not new, being provided by older languages such as LISP, ALGOL was the first truly general purpose language to offer all four features.

In the next brain churning instalment I shall continue by discussing ALGOL-60 in more detail.

Dave Miller 

APPLEFEST BOSTON

The Applefest was held last month in Boston.

Kevin Harvey and the folks from STYLEWARE rolled out their GS integrated software package, using the GS speed, and graphics features. Unlike Appleworks which only contains 3 separate features, "GS WORKS" contains 6 programs in one. Yes, it has the expected word processor, spread sheet, and data base, but it also has page layout, graphics, telecommunications, and an 80,000 Webster spell checker and Thesaurus. As an added bonus, it will read and use any files you have already created with Appleworks. In addition to the Imagewriter it will also support

Figure 4:

writeint (number)

If you look at it carefully, you will see that, although it is recursive, it is quite simple in its approach.

'procedure' writeint (number);

'comment' procedure to write out the value of "number" to the current output channel;

'value' number;

'integer' number;

'begin'

'comment' check for number < 0;

'if' number < 0 'then'

'begin'

'comment' convert number into +ve value and output a "-";

number := - number;

writetext ({-})

'end';

'comment' if number only 1 digit long (< 10) then output it now;

'if' number < 10 'then'

'begin'

'comment' writechar writes out a character whose ASCII value is passed (it is non-standard!)- 48 is the ASCII value of "0";

writechar (48 + number)

'end'

'else'

'begin'

'comment' this is the clever stuff- divide by 10 and print out the quotient via procedure writeint (which just happens to be this procedure, but, as far as ALGOL is concerned, could just as well be any other procedure) and then write out the remainder;

'integer' quotient, remainder;

quotient := number / 10;

remainder := number - (quotient * 10);

writeint (quotient);

writechar (48 + remainder)

'end'


'end' writeint;

the Epson printers. (Thanks Kevin for writing the Epson Driver and getting the GS out of the Imagewriter only syndrome).

TML Systems had version 1.50 of TML Pascal which sports several new features along with a few bug fixes.

Big news from BEAGLE BROS as they announce six new additions to the Time Out

family. A thesaurus, Desk tools II, PowerPak, MacroTools, Accountant, and a Communications package. They also tell of plans to add "Paint" to the power of SuperFonts and Graph.

For less than \$50, EPYX allow homes video users to add text, graphics, and special effects to their video recordings with their HOME VIDEO PRODUCER. 

The Force to the Rescue

A satisfied customer tells us how he uses the Force

The FORCE, our Telecom Gold service, has a mixture of business and private users. It is the cheapest way of getting your own private mailbox on Gold, and it also allows you to send Telex with ease and without special equipment. John Lee, the Sysop, keeps a close eye on the system, and on many occasions has been able to help members when they have had problems.

At times this help has been a life saver. The following letter, received from Crick Carleton, does not fully explain the help John was able to give him. During the Telecom strike some areas of the country were affected, and Crick was unable to access the FORCE. John was able to log on to his box and pass the Telex messages on by surface mail. With a move to Scotland, they have been off line with system failures, and so John has again been able to work their box till they can once again get back on line. This is a service they would not get from any other system on Gold.

Any small business who wishes the freedom of Electronic Mail and a Telex facility, should consider joining the FORCE. We charge nothing to join the system. A small #5 monthly handling fee is levied, and we bill you directly for Telecom charges that you incur. There is always help on hand from the Sysop John Lee.

The FORCE, unlike Gold itself, runs under a friendly menu system. With the minimum of fuss this allows you to quickly access the most useful aspects of the system. We have full Xmodem protocol file transfer available which allows data files

to be sent as messages, and a host of other features. The following is the letter that Crick Carleton sent to us.

A Satisfied Customer

In 1981, after much head scratching, I formed my own consultancy in international fishery development, working from the back room of my home. A year later matters had developed to the recruitment of a part-time secretary and the purchase of our first Apple IIe set up for CPM and Wordstar. On the basis of the manuals alone, it took us about six months to get the hang of everything, and to this day we find that hardware and software manuals still fail to meet the most basic requirements of a computer novice. Nevertheless, computerising at an early date was an essential component to the growth and success of the company.

Within a year we had purchased a second hand Apple IIe and found that while our friends and colleagues were buying expensive "go-faster" models our Apples were serving all our word-processing, data storage and accounting requirements for a fraction of the cost. Our usage included production of about twelve 50 to 300 page reports a year, plus extensive correspondence requirements world-wide, and the maintenance of a register of the CV's of some 400 specialists, and the addresses of some 4,000 contacts.

In 1985 we moved into formal offices and were drawn into the mysterious world of computer communications, purchasing a Pace Nightingale modem, Mastercard II softcard, and member-

ship of The Force, now Apple 2000.

Overnight our stalwart Apple IIe was transformed into a Telex terminal and superseded the Telex bureau service we had used since inception of the company. After some initial struggles with the communication manuals our membership of The Force/Apple2000 has paid dividends, with access to user group discounts, smooth operation, individual billing, and the most helpful support services, when necessary, of the system operator. I would strongly recommend that any small business that occasionally needs to contact businesses by Telex plug into the electronic mail system and the Telex facilities offered by Apple2000. We have found them invaluable.

In the last couple of years we have upgraded to an IBM compatible XT hard disk system that better copes with our data handling and word-processing requirements, and we have only recently said goodbye to our last IIe. Nevertheless, we retain our association with Apple2000 through our continuing use of its services using the new hardware. All we are waiting for now is the offer of a unique Telex number, so that we no longer have to get our clients to put our reference code at the head of incoming Telexes, and we look forward to being able to splash out and connect our Fax machine direct to the computer.

But be warned, as we found with the IIe's, most people/businesses require simple and straightforward computer applications and do not require the speed or versatility offered by the modern generation of micro-computers. If you can afford to pay for the luxury of having most of the user options available on your computer redundant, then buy a "go-faster" computer. The same goes for communications - keep it simple, use the tried and trusted, but do not be put off by all the technical jargon, communications can and should be simple.

Crick Carleton
Nautilus Consultants
April 21st 1988



Open Apple Cuttings

Clipped from Open Apple magazine

Tom Weishart of Open Apple has graciously agreed that we may reprint extracts from his excellent publication Open Apple. We offer these as a taster of what is on offer in Open Apple, and would thoroughly recommend that those of you who are interested in the Apple II and especially Appleworks should take out a subscription. You will find full details of how to order Open Apple in the advertisement on Page 8.

A+ recently completed a study of new IIGS buyers. You know, the computer Apple markets to kids. Here's a few facts about these kids:- 77% are between 30 and 54 years old; 46% have completed some post-graduate study; half have annual household incomes of \$50000 or more and a quarter have incomes of \$75000 or more. No less than 76% have owned microcomputers before; 57% have owned Apple IIs. Of those who are employed, 80% use a computer at work.

Although Apple absolutely refused to market the Apple II as a business machine, 96% of the new IIGS buyers say they'll use their computer for word processing, 70% for data base management, and 61% for spreadsheet analysis. By comparison, only 50% say they'll use the IIGS for children's education, 49% for personal education, and 37% for household management.

But maybe the last were first all the time and nobody knew it. David Thornburg's "Learning Curve" column in the March issue of A+ is all about a HyperCard-like program called Tutor-Tech. It's been available for 128K mouse equipped Apple IIs for two years already (\$195, Techware Inc., PO Box 1085, Altamonte Springs, FL 32715).

This product was designed to be an authoring system, but on the surface it looks exactly like Hypercard - or to be more accurate, HyperCard looks just like Tutor-Tech. According to Thornburg, the program provides a menu driven system for creating frames of text and graphics. You can also put buttons or text response fields on the frames. As with HyperCard, buttons have a destination frame that is loaded when you click the button. The text response field, on the other hand, leads to one of two frames, depending on whether the response that's typed in is what the teacher/programmer said it should be. Buttons can also increase or decrease student's scores.

FAST, RELIABLE SCSI MASS STORAGE SYSTEMS

for
Macintosh Plus, Mac SE and Macintosh II
Apple IIGS and IIe

Selectable Interleave,
AppleShare and A/UX Compatible

- ✓ Rugged reliable design
- ✓ 20,000 power on hours MTBF
- ✓ Whisper-quiet fan cooled system
- ✓ Platinum Colour

INTERNAL:

Macintosh II - 40 MB or 80 MB - 29 ms Average Access time

Macintosh SE - 40 MB - 29 ms Access time

EXTERNAL: 20 MB to 960 MB Hard Drives

MacStack: 20 MB - 65 msec access time

MacStack: 40 MB or 80MB - 29 msec access

TapeStack: 40 MB SCSI Tape Backup System with Data Compression.

PowerTower: 320 or 640 MB - up to 16 MB of Cache - 0.5 ms Avg Access.

All Mac drives include HyperCard, SCSI utilities and HyperCard Stacks.

Also available for Apple IIGS and IIe with host adaptor.

Prices start at just £499.00 for 20Mb.

Plus Special Offers on DTP Systems, Network Systems, Memory Upgrades

Bidmuthin Technologies Ltd.
Brent House
214 Kenton Road
Harrow
Middlesex HA3 8BT

Telephone 01-907 8516

Apple Authorised Resellers
Level 1 Service Centre
for Macintosh, Apple II, Mac II, LaserWriter

Experts in Apple Expansion

From Page 27

Because HyperCard works with a full blown programming language (HyperTalk), you can use it to build quite sophisticated applications. Tutor Tech, on the other hand, is limited to the application type that is simplest to create in HyperCard: collections of frames you can link with buttons.

Both products can link to frames within a given set as well as to other sets of frames. A single Tutor Tech lesson can be 250 pages long (provided you don't run out of RAM first). HyperCard documents are disk resident, so the size limitations depends on the disk rather than the available RAM.


Some people may think that HyperCard is a rip off of Tutor Tech, but I sincerely doubt it. Thornburg says. Even though Apple's booth was located a few feet away from Techware's at the annual 86 Florida conference (where Tutor Tech was introduced), I've yet to find an Apple employee who knows about the product.

I find it amazing that a product that shows off the Apple II beautifully as Tutor Tech does has gone virtually unnoticed in the press. HyperCard was on the cover of a lot of magazines last year and, as far as achievements go, I think Tutor Tech is just as newsworthy. Success in the educational software field is hard enough to obtain. If the only programs that get attention are the ones with massive ad and PR underpinning, we will drive the small, talented companies out of business.

Three Apple gotchas. If you've ever been puzzled by which way the write protect tab on a 3.5 inch disk goes to indicate write protect, it's probably because the Apple 3.5 Drive Owner's Guide has it backwards. The Unidisk 3.5 Owner's manual, on the other hand, has it right in five different languages.


Many Apple dealers will be happy to sell you an Apple 40 megabyte SCSI hard disk at the suggested retail price of \$2208. Few know enough to warn you, however, that 8 megabytes of the drive will be wasted because the the largest device ProDos

can support is 32 megabytes. And Apple doesn't have any partitioning system that would allow dividing the 40 meg drive into two 20 meg volumes. This month Open Apple bought a 60 meg SCSI hard drive made by CMS, on the other hand, that can be partitioned into two 30 megabyte volumes. Not only does CMS provide a way to split the drive, it also provides ways for two or three different computers to share the disk - each with their own area for writing and shared areas for reading. If this sounds incredible so far, get this - it costs half as much as Apple's 40 meg drive and it's quieter than a IIGS with a fan (CMS Enhancements Inc, 1372 Valencia Ave, Tustin, CA 92680).

With our new CMS drive we got a copy of version 1.1.1 of Apple's Backup II program for backing up ProDos hard drives. We were glad we did, because Backup II version 1.1 works only with versions of ProDos 8 prior to 1.2. Even though Apple's Tech Tidbits recently had a question about this and answered that Backup II would work with any version of ProDos 8, they obviously didn't try to combine the older Backup II with newer versions of ProDos. That combination habitually crashes into the Monitor. 

APPLEFEST BOSTON

Dr. Bill Basham, of Diversi-Dos, Diversi-Copy fame (yes folks, he gave up his medical practice to write software back in 1980) has a new winner with Diversi-Tune. To show off it's greatness, Basham had famous jazz musician Nathan Page, of Orlando, Florida recording a live jazz piano album right at his Applefest booth. Every note was recorded with Diversi-Tune and released on 3.5 disk, making it the first live album ever available on a computer disk. Show Special price on this dandy was only \$55.

The above material about the Boston AppleFest is copyright 1988 by Miami's Big Apple, 305-948-8000 and reproduced here with permission of author Bob Sherman. 


APDA PROUDLY ANNOUNCES: SETTING THE STANDARDS II

Dateline: AppleFest, May 21, 1988

The Apple Programmer's and Developer's Association (APDA(TM)) held an important conference to further refine standards for the Apple II and the Apple IIGS computers. Issues included memory, I/O, file protocols, tools and operating system design, and languages. Also discussed was how the Apple developer community can effectively carry through following AppleFest.

Dr. Charles Stillman was coordinator for the conference and the panel included Michael Fischer as the moderator, Ron Lichty, Rob Moore, Steve Glass, Rich Williams, and Rilla Reynolds representing Apple Computer, Gary Little software developer and A+ magazine editor-in-chief, Cecil Fretwell, technical editor Call-A.P.P.L.E. magazine, Kevin Harvey, President of Styleware, Mike Westfield, President of the Byte-works, and Tom Leonard, President of TML Systems. This panel enabled both the "trend setters" and other programmers to have a full exchange with the Apple staff, thereby laying the foundation for future policies and standards.

Transcripts of the first Standards Conference may be ordered from APDA.

Applefest details: courtesy of the MAUG Special Interest Group on Compuserve. 



We hear a great deal these days about virii and their antidotes. If we are to believe all we hear, then every IBM computer must be very sick indeed.

What is a virus, and will it affect us in the Apple community?

Do these virii exist already, and might your computer be infected?

How do you know you have a virus and how do you protect your computer against one?

These are some of the many questions in our minds as the threat becomes a reality.

First of all, a bit of history. Computer programming is a very intense process, programmers soon became bored with what they are doing, and to relieve the monotony they started to put extra messages in their programs. These messages were at first quite innocuous and would only be seen by the curious disk peeker. The programmer was not going to sabotage his own work with a virus! Some programmers working on machines that directly handled money, realised that they could install hidden bits of code that could syphon funds from many accounts into their own. This was a true virus, as it was no longer a benign bit of code, but actually modified the original intention of the main code.

There are stories of the programmer who held a company to ransom with a hidden piece of code, timed to be activated automatically, if the company did not pay him to stop it! This was a true virus, and was the forerunner of what exists today.

The next step leads us to the present day. Programs are now too large for them to be written by one person only, and typically a large team will be working on any one project. Often programming is not actually done on the machine it is destined for, as linking to a mini or mainframe brings with it greater flexibility for a team of developers.

This however brings the seeds of destruction. Programmers are clever and creative chaps, or they would not be doing their job in the first place. When they get bored they think of ways of

A Plague of Virii

A topical theme explored

by Ewen Wannop


whiling away the time. What better than to play a practical joke on another team working from the same network, and lay an egg or virus for them to discover. This may only be a simple program that can find its way around the system, printing "April Fool" onto each terminal, but it might also copy itself to another part of the system, erasing the original copy. This may seem innocuous enough, but the malicious programmer can make this time bomb erase or damage files on the way. This could be disaster for the system. The more recent introduction of local networks, through modem links, has allowed this kind of virus to travel great distances indeed.

The vulnerability of any system depends on how it links or connects with other machines. As far as the Apple range are concerned, the weak points are in the system files that lie on the boot discs. If you are running an Apple II under ProDOS or using a Macintosh, you will boot the system from the system files on one disc and run other programs from the desktop thus created. The integrity of the files on these boot discs is paramount. It is important that your original boot discs are always kept locked, and that in any case you only use copies of your original masters. You should always replace your system files on a hard disc at regular intervals if you suspect any contamination has occurred. Unless you have your machine connected up as a remote terminal, there is little danger of any virii entering the machine through a modem or network connection.

As a precaution, you should

only run new programs from disc, and make sure that you have nothing else on line at the time, or you have all other discs locked. You can then switch off and reboot if the worst happens. Remember that there is no corruption that a switch off and on cannot cure as far as the computer is concerned. If you have a hard disc permanently connected, as you would have in a Macintosh SE or a Macintosh II, then it is possible for the hard disc to become corrupted.

If odd things start to be seen, you may have found a virus rampant in your machine. Immediately switch off and take stock of the situation. I assume you are using copies of all your master discs, so you can replace any discs that must be used unlocked. Your hard disc should be reformatted and restored from your last backup. Then make sure you have thrown away the suspect program. Finally tell us all which program was affected by writing to us here at Apple2000, or letting us know immediately by a message on the TABBS bulletin board. We will try and keep you all informed of the current situation as it develops.

Apart from that, there is no easy way of knowing if a program has a virus present. Beware of any unusual programs that you may receive, until you have tested and proved them. Do not run any 'Flushot' or 'Vaccine' programs unless you know that they are genuine. Do not even think of passing on or creating a virus yourself. To do so will only backfire on you in the end. The Shareware and Freeware system depends on the integrity of the programs. 

How to copy ProDOS files from Applesoft programs

An in depth study of Basic programming by Dave Ward

ProDOS 8 is an excellent operating system for 8 bit Apple // computers and was a vast improvement over the previous operating system DOS 3.3, when it was introduced in 1983. ProDOS 8 uses a 10K byte interface BASIC.SYSTEM to interface between ProDOS and Applesoft and this interface provides many operations that under DOS 3.3 would have required some sort of machine code add on. For example the garbage collecting routine in Applesoft is rather slow and if your program uses a large amount of strings garbage collection can take 15 minutes or more. The ProDOS interface contains code that allows garbage collection to be done in less than 2 seconds. This has to be fast under ProDOS because when you are running an Applesoft program this operation has to be performed every time your program uses disk access. Another example is the ability under ProDOS to place a CATALOG listing into a textfile directly from an Applesoft

program without any added machine code. (See my article in Apple 2000 magazine for April 1987 pp32).

Under ProDOS 8 the Applesoft disk commands BSAVE & BLOAD have been greatly enhanced over their DOS 3.3 counterparts, so much so that it is possible, from within an Applesoft program, to copy any type of ProDOS file of any size!! You can copy all 256 filetypes even those created under SOS (Apple /// operating system) and ProDOS 16 (Apple IIgs 16 bit operating system), however, directory files should not be copied in this way; they should, preferably, be CREATED and then files copied to the newly CREATED directory.

When challenged to produce a pure Applesoft copy program under ProDOS I expected an easy ride but there were many problems along the way and it took a lot longer than I would have liked. Here is a resume of the problems that occurred along the way and the final result, which although is

not pure Applesoft, which works.

Listing 1 shows a subroutine that could be used with an Applesoft program with very little change required. The only changes might be renumbering and/or change of variable names to avoid conflicts.

Here is an explanation of the listed program :-

Line 1

It is good practice to keep often used subroutines at the start of the program, so the main entry point is near the end.

Line 50000

This is the program entrypoint. For this demonstration the Source file and Target files are setup and copy routine called.

Line 300

Start of copy subroutine. B\$ holds the position within the files as copying may be done in more than one bite! The source file is verified which stores the file type in the BASIC.SYSTEM global page at \$BE00-BEFF. Next the TARGET file has to be created. We will require a buffer to BLOAD the source file into and we choose \$2000-\$5FFF. Start at \$2000 with length of \$4000.

Line 320

The maximum length that can be bloaded is stored in REACH\$. The position within the files is stored in PLAC\$. Part or all of the source file is then bloaded into the buffer.

Line 340

Once the bloaded section is completed the actual length read will be stored in the BASIC.SYSTEM global page and this is placed in the variable LR. LR is used to specify the length of data in the buffer to BSAVED to the target file. The position within the source file for the next read is then updated and if the buffer was full further reading will be necessary. If LR is less than \$4000 (16384) then the file has been read and

Line 390

The subroutine exits with the file having been copied.

This routine is rather smaller than most of the machine code ProDOS file copiers and does not necessitate the loading of a file. You could easily alter the code to reduce its size considerably.

Listing 1

```
1 GOTO 50000

300 B$ = "0"
   : PRINT CHR$(4)"VERIFY" + SOURCE$ : TYPE$ = ",T" + STR$(PEEK(48824))
   : PRINT CHR$(4)"CREATE" + TARGIT$ + TYPE$ : START$ = ",A$2000"
   : L = 16384

320 REACH$ = ",L" + STR$(L) : PLAC$ = ",B" + B$ : PRINT CHR$(4)"BLOAD"
   + SOURCE$ + TYPE$ + START$ + REACH$ + PLAC$

340 LR = PEEK(48859) + PEEK(48860) * 256 : REACH$ = ",L" + STR$(LR)
   : PRINT CHR$(4)"BSAVE" + TARGIT$ + TYPE$ + START$ + REACH$ +
   PLAC$ : B$ = STR$(VAL(B$) + L) : IF LR = L THEN 320

390 RETURN

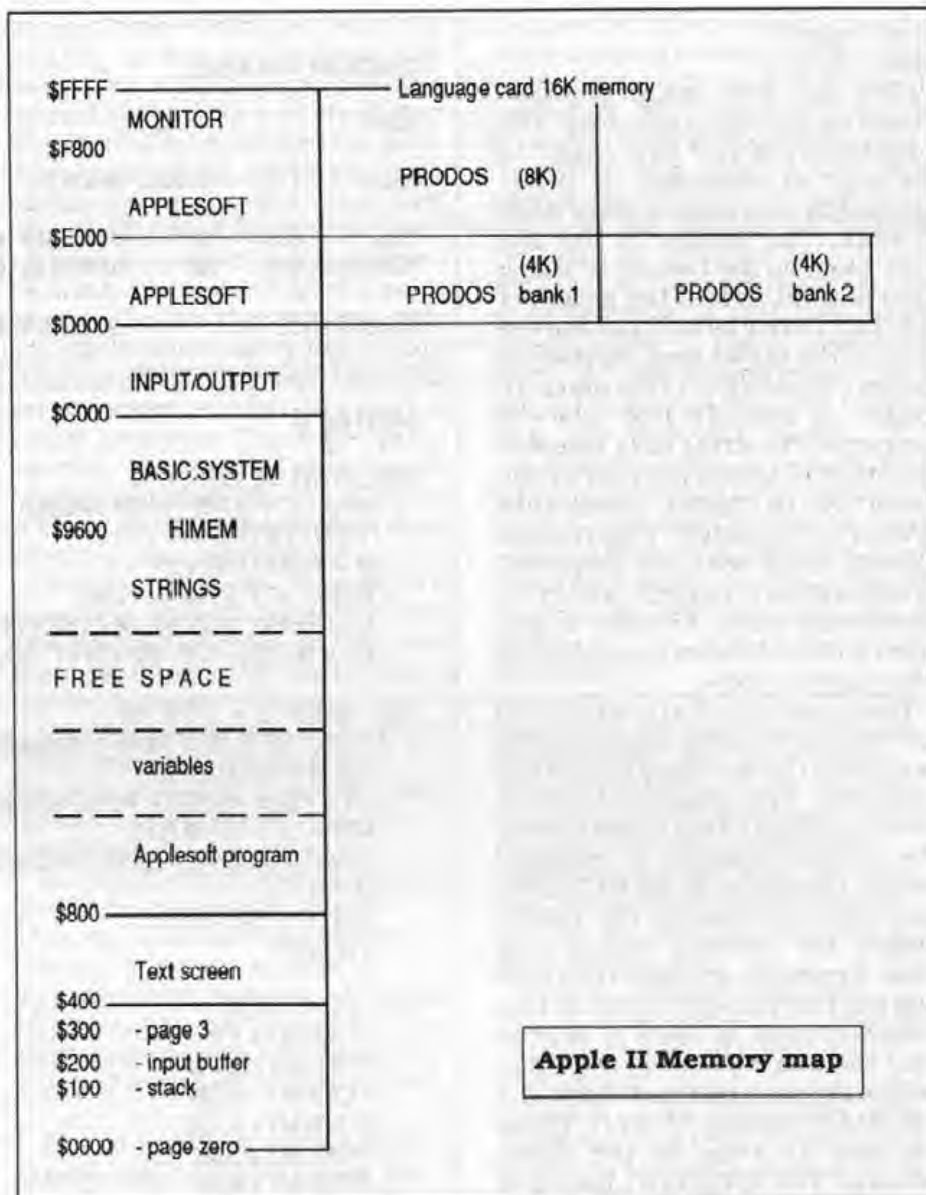
50000 SOURCE$ = "/DEMO/PRODOS" : TARGIT$ = "/DEMO/A2000/R" : GOSUB 300
```

The above program will, apparently, work perfectly with any size file but once you attempt to transfer the subroutine to one of your programs you may find that the program crashes. Why? Well we have chosen a buffer starting at \$2000 and if your program is large enough it will extend into this area of memory and your program will crash. You may be using one or both of the Hi-res pages and so these may be corrupted. Alternatively you have got so many variables and strings that there is insufficient memory for a 16384 byte buffer and in that event your variables may be corrupted. So what can be done?

If you take a look at the memory map beneath you will see that the only free memory is between the end of variable definitions and the bottom of the string data. As your program gets bigger or you introduce more variables this space becomes less. Also every time you define or redefine a string variable the string data drops down which is why garbage collection is necessary at some time to clear out the old string data (garbage) and maximize this free space.

In a running Applesoft program you can always find the free space since the addresses of the top of free space (bottom of strings) and bottom of free space (top of variables) is stored in page zero at \$6F/\$70 and \$6D/\$6E respectively. The Apple // 64K bytes of memory is divided into 256 'pages' of 256 bytes. In the above pointers the higher byte of each pair points to the 'page' in memory whilst the lower byte points to the byte in the page. To save program space we will only use the 'page' pointers to define our buffer. For instance the page where the lower boundary occurs is contained in byte \$6E. We will add 2 to this value to leave a little space just in case our routine adds some new variables. We do the same for the upper bound but use \$70 and subtract 2 and then 16. The 16 is necessary because we will be using disk access which causes the strings to be pushed down by 16 pages to make a disk read buffer!!

A running program will almost certainly have old string definitions (garbage) that reduces the amount of free space; to maximise free space we do a garbage collection by :- ?CHR\$(4)"FRE"



Listing 2

```

1  GOTO 50000

300  B$ = "0" : PRINT CHR$(4)"VERIFY" + SOURCE$ : TYPE$ = "T"
      + STR$( PEEK(48824)) : PRINT CHR$(4)"CREATE" + TARGET$ + TYPE$

310  PRINT CHR$(4)"FRE" : S% = PEEK(110) + 2 : L% = PEEK(112) - S% - 16
      : S = S% * 256 : L = L% * 256 : START$ = "A" + STR$(S)

320  REACH$ = "L" + STR$(L) : PLACE$ = "B" + B$ : PRINT CHR$(4)"BLOAD"
      + SOURCE$ + TYPE$ + START$ + REACH$ + PLACE$

340  LR = PEEK(48859) + PEEK(48860) * 256 : REACH$ = "L" + STR$(LR)
      : PRINT CHR$(4)"BSAVE" + TARGET$ + TYPE$ + START$ + REACH$
      + PLACE$ : B$ = STR$( VAL( B$) + L) : IF LR = L THEN 340

390  RETURN

50000 SOURCE$ = "/DEMO/PRODOS" : TARGET$ = "/DEMO/A2000/R"
      : GOSUB 300

```

Listing 2 shows how the data buffer can be placed within this free space.

Line 310

First the free space is maximised by garbage collecting! The pointer to the 256 byte 'page' to the end of variables is incremented by 2 to leave a bit of room to work. The pointer to the 256 byte 'page' to the bottom of string data is used to find the length of the data buffer by subtracting the start of the buffer and another 16 'pages'. If you don't this extra 16 'pages' of memory free you will overwrite the string data because the ProDOS moves the string data down by 16 'pages' when disk access is requested. This routine should work with all Applesoft programs but a check would be worthwhile since a buffer of less than 4096 (4Kbytes) would make copying very slow.

The above is, unfortunately, still not perfect because when the file is created the auxiliary data is not included. The auxiliary data is used by BINARY files to determine the default position in memory where the file is to be BLOADED and also for storing the record length for random access text files. Strangely enough BAS files will not run properly because this auxiliary data is used to ensure that the chain pointers from line to line are accurate! Lets look at a CATALOG listing for an original file and its copy by the above routine! The CATALOG listing is shown opposite.

The auxiliary data is under the SUBTYPE heading and you can see that the copy has a zero value. CREATE under Applesoft always zeroes this data and there seems to be no way round it. Perhaps this could be considered an omission? With no apparent way of doing this directly through Applesoft/ProDOS interface some machine code will be required. This could be done by patching ProDOS but that is known to be dangerous since Apple Computer quite rightly want to enhance ProDOS from time-to-time. Since we have already created a buffer to load the data we can safely put our little routine there. Most of the data for that routine is collected from the ProDOS/Applesoft 'global page' at BE00-BEFF which is most unlikely to change in the future. Listing 3 shows a satisfactory routine:-

ProDOS Catalog

A2000

NAME	TYPE	BLOCKS	MODIFIED	CREATED	ENDFILE	SUBTYPE
*SAR	BIN	88	04-APR-88 16:19	04-APR-88 16:19	44544	A=\$2000
*SAR.COPY	BIN	88	04-APR-88 16:19	04-APR-88 16:19	44544	A=\$0000
BLOCKS FREE:		11	BLOCKS USED:		269	TOTAL BLOCKS: 280

Listing 3

```

300 PRINT D$"VERIFY"$
:M$ = "T" + STR$ ( PEEK (48824))
:PRINT D$"FRE"
:M = PEEK (110) + 2
:M1$ = "A" + STR$ (M * 256)
:L = ( PEEK (112) - 16 - M) * 256:M2$ = "L" + STR$ (L)
:M1 = M * 256 - 128 :M2 = M - 1 :M = 0

301 M3$ = "B" + STR$ (M)
:PRINT D$"BLOAD"$M1$M2$M3$
:ON M = 0 GOSUB 302
:LR = PEEK (48859) + PEEK (48860) * 256
:M2$ = "L" + STR$ (LR)
:PRINT D$"BSAVE"$M1$M2$M3$
:M = M + L
:ON LR = L GOTO 301
:RETURN

302 POKE M1,32
:POKE M1 + 1,0
:POKE M1 + 2,191
:POKE M1 + 3,192
:POKE M1 + 4,135
:POKE M1 + 5,M2
:POKE M1 + 6,96
:POKE M1 + 7,7
:POKE M1 + 8,192
:POKE M1 + 9,M2
:FOR M3 = 0 TO 10
:POKE M1 + 10 + M3, PEEK (48823 + M3) * (M3 < 5)
:NEXT

303 POKE M1 + 64, LEN (T$)
:FOR M3 = 1 TO LEN (T$)
:POKE M1 + 64 + M3, ASC ( MID$ (T$,M3,1))
:NEXT
:POKE M1 + 14,1
:CALL M1
:RETURN

```

Here is a comparison table of our little routine compared with some of its illustrious competition !

Copy program used	Time (seconds)
Copy II plus version 8.2	38.3
Cat Doctor from ProSel package	35.1
COPY command from BIG U by Beagle Bros. (35K buffer)	32.9
COPY command from BIG U by Beagle Bros. (8K buffer)	34.2
Applesoft routine from running program (35K buffer)	38.3
Applesoft routine from running program (8K buffer)	79.8

The above programs were used to copy an 44K byte BINary file from the main directory of a 5.25" ProDOS formatted diskette to a directory file on that diskette. From a small Applesoft program our routine is quite good considering as it is not often that Applesoft routines approach the speed of well designed machine code. As the Applesoft program eats away the buffer (free memory) the performance of our routine in regard to speed deteriorates. Two big advantages of the routine are that it only takes up 480 bytes of memory and is resident with the Applesoft program. COPY commands have to be loaded from disk, are usually at least twice the size and the code has to be hidden somewhere in memory.

The deterioration in copy speed

as the buffer reduces, with our routine, is due to the fact that every time a BLOAD or BSAVE is carried out the file is opened then closed all of which takes up valuable time. Pure machine code routines only open files once and then finally close them at the end.

There is another small addition that can be made to allow one to change the file type whilst copying. All ProDOS file types, except Directory and Volumes, have the same format so that this feat is easily achieved. There are some caveats, however. For instance changing a BAS file to a TXT file will not change that file to a form where it can be read by a word processor such as AppleWorks. Also one should be aware that converting BIN files to SYS files may not apparently work. This is

because SYS files are always executed at \$2000 whereas you specify the load point for BIN files. So your SYS file may not run at \$2000 or may be too big to load. Changing SYS files to BIN will almost always work because they can still be loaded at \$2000. Transferring BIN files to SYS files so that they work perfectly can be quite difficult, a fact that I am aware since I have converted many of the programs I purchased years ago into SYS files so that they work with ProSel.

It would be nice if this routine could be made purely Applesoft. Having checked carefully I don't believe that this is possible, however, if anybody can cut down or remove the machine code let us know.

Dave Ward



The Boffin answers some more of your problems

Q. In the October issue of Apple2000 there is a tip from Bob Platt about the AUXMOVE command of the //e. When I tried this I was rewarded with a crash to the monitor. What am I doing wrong?

A. Someone got their wires crossed, and did not check this tip out before printing it. The manuals are indeed correct, and the AUXMOVE command does at \$C311 as advertised. We will check all such tips more carefully in future.

Q. I have just received my copy of the Finder for the IIGS from my local dealer and installed it on my hard disc. I now can choose any program I like, but some do not work properly any more. Have you any suggestions?

A. There were many bugs in the original versions of the ram tools, and these have now been updated either by the new ROM or with new versions in the toolbox folder. However some of the early programs patched themselves round these bugs in order to work. These patches do not now work correctly with the new tool routines. The answer is to boot the original application disc, and not run these programs from the Finder. This way the program will see all the correct versions of the tools that it is expecting.

Q. If I upgrade to a IIGS, which cards and disc drives should I keep from my old //e and which should I pass on with the old machine?

A. To list every possible card would be impossible, but if I take the slots one by one, we can get a picture of how to approach the problem. Remember that any slot you use on the IIGS must have its entry on the Control Panel set to 'Your Card'.

Slot 0 - Memory card or Language card: The IIGS, like the //e, has its own built in 16K memory card, so you do not need this one. If it is a 128K memory card, then it would be possible to use this in one of the other slots, but it is recommended to use one of the newer expansion memory cards that are recognised by ProDOS rather than the older fixed memory cards.

Slot 1 - Parallel printer card: The IIGS has its own built in serial port to drive a serial printer. If you only have a parallel printer then you will need to keep this one.

Slot 2 - Serial modem card: The IIGS has its own built in modem port which can be used by many communications programs. However some of the older programs may not be able to see the port and will not work at all. You should therefore use your old serial card in this case. If you need to use the 1200/75

baud rate for your manual dial modem, then you should keep your old serial card as the IIGS cannot generate split baud rates directly from the serial port.

Slot 3 - 80 col card: The IIGS has its own 80 column screen you do not need to keep your old 80 column card.

Slot 4 - Mouse card: The mouse interface is built in to the IIGS so you do not need this card either.

Slot 5 - Z80 card: Some Z80 cards will not work at all on the IIGS due to subtle timing differences, others will only work if you slow the clock down. The answer is to try it out and see. If possible do a 'soak test' to make sure that all is in order before you finally decide.

Slot 6 - Disk controller card: If you have a large collection of 5.25 inch discs you may wish to use them on the IIGS. You only need plug your controller card into slot 6 to use the 5.25 drives as before. However you may wish to purchase a separate 5.25 drive that you can daisy chain from the smart port and release your original drives to be sold with your old computer. If you had a //c external drive you could daisy chain this directly to the smartport.

Slot 7 - Colour card: Most colour cards will not work in the IIGS. Remember that the IIGS has its own built in RGB output, so you should not need a colour card anyway.

Data Transfer from Apple II to Hypercard

Nick Hunter gets into Deep Space with his dual machines

Although I now use the Mac almost continuously, my IIc still does very useful service at the office. It is an excellent machine for routine data capture - otherwise known as typing. Many temps prefer the IIc for its sweet keyboard and lack of mouse and scrolling bars.

This article is to do with using the II with other computers in an office. Files generated on the II can easily be restructured for use by any machine - even IBM (burp). This time we'll look at moving data from AppleWorks through into Hypercard. The example data will be names and addresses

TAB-RETURN FORMAT

Up until recently Hypercard hasn't been very friendly towards importing spreadsheet & database files, but data from these sources can be moved in and out of many programs using the magic tab-return format. This is a standard for data exchange which has evolved by being amazingly useful, and its praises cannot be sung loudly enough. At some time this is how you will want your files to be structured:

```
Data1 <Tab> Data2 <Tab> Data3 <Tab>  
Data4 <Tab> Data5 <Rtn>
```

This differs from the data you usually type on the top of letters which is:

```
Data1 <Rtn> Data2 <Rtn> Data3 <Rtn>  
Data4 <Rtn> Data5 <Rtn> <Rtn>
```

DATA PREP IN APPLEWORKS

I take a different attitude to typist duties than most people. I assume they make mistakes and actually I prefer they do, provid-

ing they do so for reasons of speed. Being a slow hunt & peck single-finger typist I want someone going flat out with the full ten, and I don't care if they drift off occasionally into a dream when their pop idol comes on the radio.

Thus I use a typist to key-in rough data in large volumes, and then clean it up using the Mac as an editor. Isn't this what computers are all about?

You may prepare your name & address data in any II program which can save data down in ASCII text form - AppleWorks word processor, spreadsheet or database will do. If you are doing lots of addresses in AWSS organise the number of fields and fill in all the common elements like London and England first. Strip them down with the ditto function - AWDB allows you to do this by creating standard values with OA-V. This saves lots of time.

BATCH PROCESSING

Before discussing file transfers, let's talk about how to do really fast data prep. If you want to get a big task like a mail shot done really efficiently, the best way is to break the work up into batches of little repetitive jobs, and then go through the whole listing or database several times, doing the same action over and over again.

Name & address lists can be batched quicker by using a spreadsheet to strip in all the "London" and "England" bits for example. Excel does this with the Cmd-D (fill down) function which is probably the most useful command ever invented on a PC. Believe me it really pays off when you only have to

type "Ambassador Extraordinary and Plenipotentiary" the once for a long list of Embassies!

If you entered the addresses with a word processor, go ahead as usual and put <Rtn>'s at the end of each address line, but type in a "%" or "@" between each complete record. What you want is any single character on which you can do a search & replace (S&R) later so you can get to that all-seeing tab-return. If working in a spreadsheet put a dummy field at the end of each line for the % character, and fill it down. If working in a database create an extra (final) line, and set % as the standard value with OA-V.

At present I use the structure:
"Title > Inits > Surname > Position >
Company > Street > Zone > Town > State,
Zip > Country > Datasource"

but will soon be adding phone number and other bits & pieces. The reason for all these fields is to speed up typing, and allow selective sorting on Position, Company, Town, State, Zip or Country.

I made up a database of 16,000 addresses from data generated in an enormous variety of original formats - Word Juggler, AWWP etc all typed in around the country by different people on Apple II's. If your addresses have already been typed in with each line ending in a return, then separate each record by two returns. This is OK - providing your software can do S&R on tabs and returns. If it can't then you'll have to go through and key-in a spacing % or @ character to search on.

SEARCH & REPLACE

As far as I know, AppleWorks won't do S&R on tabs or returns though Applewriter is very good at it (either the DOS or ProDOS versions). If you only have the DOS 3.3 version of Applewriter, use Chameleon for ProDOS to DOS transfers to get into Applewriter. Maybe someone out there has found how to do S&R in AppleWorks? Tell us if you have.

These little tips are always welcome. Remember you can always let us know on the TABBS bulletin board if you do not have a stamp handy.

Bidmuthin's A-Z of //GS solutions.



A complete GS accounts system, seamlessly integrating sales, purchase and general ledgers with invoicing from stock, stock control & management reports. Brilliantly easy to use and fast. Designed for the non accountant.

Options include RAMcaching & macros.

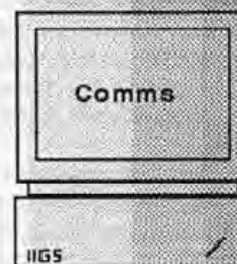


Yes, once you've drawn a few boxes you run out of great ideas.

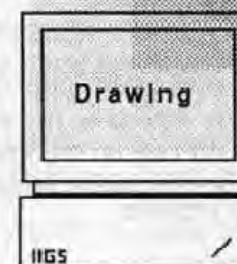
Or do you?



Based on AppleWorks expanded and enhanced with as many options and utilities as you need: Spelling Checker, Macros, Comms, Graphs etc. etc. All fully installed with mousedesk & selector to give a price/productivity performance few other systems can hope to match.



An answer to the 'joys' of trying to communicate with the outside world. Datalink, an internal, 1200/1200 baud Hayes compatible AA/AD modem complete with software. Also external modems and a variety of software.



TopDraw is a magnificent drawing program for the //GS only. It is object orientated, with masses of features. Like a colour version of MacDraw. Integrates with Multiscribe for desktop presentations.

Filing
Graphics
Hard Disks
Integration
Joysticks
Hard disks
Konsultancy (we may be good technically, but lousy at spelling)
Linking
Music & Multitasking
Number crunching &
Networking
Options
Printing
Quality support
RAM
Science
Training
Utilities
VIP Professional
Word Processing
Xtra memory
Zork Trilogy - after that lot everyone needs a break!

These are just some of the systems we can offer. If you have a problem, why not let us recommend an answer. We guarantee it will meet your requirements.

Bidmuthin Technologies Ltd.
Brent House
214 Kenton Road
Harrow
Middlesex HA3 8BT
Telephone 01-907 8516

Apple Authorised Resellers
Level 1 Service Centre
Apple // series & Mac

Now restructure your usual Name and Address data so it becomes tab-return data:

Select entire text block	
Search for <Rtn> <Rtn>	Replace with %
Search for <Rtn>	Replace with <Tab>
Search for %	Replace with <Rtn>
Save document as "text only"	

See the table above for the Search and Replace sequence.

COMMS SOFTWARE, SPEEDS & SETTINGS

Text files can be transferred under either DOS or ProDOS for uploading to the Mac. I use either Data Highway (DOS 3.3) or Gazelle (ProDOS), both written by Apple2000's Ewen Wannop. The cheapest way to move Apple II files to a Mac is via null modem, which is very simple to make up. Mine is less than three feet long to minimise errors.

The II - Mac pin connections are: 1-7, 2-9, 3-3, 4-5, 5-6 while the II - RS 232 pin connections are: 1-6, 2-3, 3-7, 4-2, 5-20.

When doing a null modem transfer, don't use speeds of more than 2,400 baud or you'll beat the software. Ewen suggests using a 7-bit protocol for text as some machines like IBM (burp) and the Mac don't like the high bit on. Seven forces the high bit off, though I confess I've always used eight and had no trouble. Use XON/ XOFF flow control to ensure data is transferred correctly.

If your file is a long one, go off and have a coffee or something. But unless you have made a backup, don't trip over the power supply cable as you go. I'm not joking - having got caught out by the fridge once during a file transfer.

Although I had a special ring main put in to cut out power spikes at my desk at the office, the secretaries desk is on the same ring as the kitchen. During a transfer session with the Mac on her desk, the fridge started up, drawing lots of current to kick against the pump's compression stroke. You guessed it - crash whoops and I hadn't backed up, having run out of disks. I lost that Mac disk along with weeks of macros.

THE MAC END

Now at the receiving end of the null modem cable, I'm going to assume that you got your text files successfully into the Mac using Red Ryder, MacTerminal, Microphone or Freeterm - whatever reliable comms software you use.

When you close your comms program you should now have a new file to upload onwards towards Hypercard. Microphone gives you the option of saving as a Macwrite or Word document. If you couldn't find a way of doing the S&R restructuring on the II, do it on the Mac now - it really doesn't matter on which machine you massage your data, but you must get data to that essential tab-return format.

Some Mac programs are really pedestrian at S&R. The early versions of Word (up to v.1.05) updated the entire consequent file between every S&R which for files of 500 addresses meant 14 seconds to do each S&R of a <Rtn> to a <Tab>. At 10 searches times 500 addresses this is 19 hours - aaaagggghhhh! Apparently Word 3.1 is better, and I've heard also there is a DA which will do S&R's. Please write to the Editor if you know about it. Otherwise keep files short and break the S&R into batches.

PURIFYING YOUR DATA IN EXCEL

If you saved as text only, the tab-return file should open straight into Excel. If you can't see the file name when you go to open it, check back to ensure you saved as text - a WP save won't do. Once in Excel you can do all sorts of useful things with your addresses:

- If they were entered in an abbreviated form you can sort them to bring the abbreviations together sequentially, retype the top one in full and then use

Cmd-D (fill down) to turn the others into the same. Tricks like this allow even the stupidest one-fingered typist like me to out-key the fastest temp fingers.

- Do a sort on the City field to see how many typos crept in while the temp was dreaming about David Bowie.

- Spot the wrongly-keyed zip codes, misspellings and all sorts of bugs when you sort things together in sequence.

- Stray blank leader spaces in text fields will float up to the top of columns when you sort. Be aware that "(space) data" is very different to "data" when seen by the find routines of many databases. They would have missed such unedited records, but Excel spots them and delivers them "on a plate" during the data refining process which should become a part of a standard approach to purifying your valuable data.

CONCATENATING FIELDS

You can also get really clever and concatenate adjacent Excel fields, using S&R in your word processor to remove the intervening tab which Excel automatically inserts.

Being involved with gold mines, I list both mine tons and ore grades in a single Hypercard field called "Reserves". But in Excel these are kept as separate fields so calculations can be done on the numbers.

The Excel text save shows embedded characters such as "1,500,000 -> tons -> 2.56 -> gms/t" when viewed in the word processor. All can be merged into a single field again using search and replace:

```
Search ->t tons ->t
Replace with ->t tons at
Search ->t gms/t
Replace with (space) gms/t
```

No matter how few fields you choose for your text entries, it often pays to go through Excel before Hypercard. The reason is that Excel saves each record with the same number of fields, and always with a tab between each. For gold mines work, I use Excel's series command across the top of the worksheet to sequentially number twenty fields, and zip in and out of both

Excel and Word to make sure I have the correct number of fields per record.

HYPERCARD


Getting an Excel text dump into Hypercard is now pretty simple. For merging text into stacks I've specially altered an import button for the job, so it doesn't erase data. This button is available for downloading on TABBS. Focal Point loves tab-return files. However you may find that Excel will have put " " around all text entries including a comma. So go back to the S&R if there are lots of these.

- First save the Excel file down as text

- Now open up in Word


- Get rid of all " " s using Cmd-H, changing " to blank.

- Check your embedded characters (Cmd-Y) and you'll see each record entry is separated by a -> (tab). Good - Hypercard here we come.

In Hypercard you must have fields in the correct number sequence. Use the go closer and go further commands to get them in the right sequence and check the field numbers. You may have to put some dummy fields into Excel if merging data from different sources to match the fields on your Hypercard stack. So now you have it - a route map of the journey into Hyperspace from your Apple II. There's no longer any reason to deny the urge to merge! 

THE COMMANDS EXPLAINED

OA	Open Apple Key
Cmd	Command Key
S&R	Search and Replace
WP	Word Processor
AWWP	AppleWorks Word-Processor
AWSS	Appleworks Spread-Sheet
AWDB	AppleWorks Data-Base
ASCII	Ascii Text

Nick Hunter is a consultant Gold Mining Engineer living in Bath. He has served on the committee of Apple2000 and is well known for his expertise where the Excel program is concerned. He graduated to his Mac from an early start with a //c. He still uses the //c for data input. 

This is a selection from a much larger list of useful phone numbers. The full list is available for downloading on the TABBS bulletin board. 0225 743797

Action for Disabled Customers	0345 581456
ACP80 (UK National Air Cargo Handling System)	01-407 3456
Broadcasting - Sound and Vision	01-239 1482
BT Applied Technology Leeds	0532 435730
BT Archives & Historical information Centre	01-356 7930
BT Education Service	01-356 5678
BT Insurance Services (Help Desk)	01-822 1160
BT International - General Enquiries	Freefone BTI or 01-836 5432
BTI Telex Bureau	Freefone BTI or 01-836 5432
BTI Translation Services	Freefone BTI or 01-836 5432
BT National Headquarters	01-356 5000
BT Report and Accounts	01-356 5392
BT Shops	01-356 7680
Bureaufax (Public National and International Facsimile Bureau service)	Freefone BTI or 01-836 5432
Business Communications Service (consultancy system design implementation, installation and maintenance for multinational companies)	01-936 2242
Cabletext (text service for Cable Operators)	01-379 7709
Cable TV	01-380 2616
Campaignline (recorded services for promotional purposes)	01-356 8174
Cargo Net (microsystems for freight agents)	02-407 3456
Cellnet - Cellular Mobile Communications	01-388 4222
Commsure Leeds	(0532) 458999
Communications Consultancy Services - BT London	01-733 5511
Communications Facilities Management (Network Management Products & Services) (Sales & enquiries)	01-380 2370
Conference Call (U.K. & Int. Dial-In Service)	01-240 9678
Conference Call Service (International)	01-248 6142
Confravision (meetings by television)	01-239 1515
Data Transmission Courses (Basic Analogue and Digital)	01-587 8627
Facsimile:- BT Merlin Fax Sales	Freefone Telecom Sales
Fax Directory Enquiries (UK and International). 153	
UK Fax Directory (All enquiries)	Freefone Fax Directory
Overseas Fax Directory Orders	Freefone International Facsimile
Use of Fax Internationally	Freefone Facsimile
Other General Enquiries	Freefone Facsimile
Firebird - Home Computer Software	01-379 6755
Freefone (names and numbers) London:	01-587 8340
Rest of UK:	Freefone Assistance
Guidelines (recorded information services)	01-356 8173
Integrated Digital Access (IDA)	Freefone IDA or 01-356 8233
Intellectual Property Unit	01-728 7371
International Cable Service	Freefone 2600
International 0800	0800 89 0800
International Broadcasting Services (Sound and TV)	01-936 2597
International Packet Switching Service - IPSS (International data service)	01-936 2750
International Services - General Enquiries	Freefone BTI or 01-836 5432
International Telex Marketing	01-936 2756
LinkLine Services (automatic Freefone and economy calls)	0800 333 222
Major Business Systems	01-626 7796
Maritime Communications Inmarsat	01-936 4996
Merlin (Business systems and office automation equipment)	Freefone Merlin
Mobile Phone Division . Sales:	Freefone Radio Sales 01-730 0899
Service: Freefone Radiophone Service or	01-730 8102
Network Nine Audioconferencing	01-636 3003
production platforms in UK waters)	01-936 2955
Operator Services Marketing	01-356 4333
(See Intellectual Property Unit)	01-728 7371
Phonebooks	01 356 4568
PhotoVideotex	01-379 5233

The Apple2000 Guide to Online DataBases

This comparison of online costs gives us an indication of what we may expect to be charged. Note that our own FORCE section on Gold is the cheapest way of joining Gold, and that our very own bulletin board TABBS compares favourably with all.

UK DATABASES

PRESTEL

Time charge	6p/min 0800-1800
Free Evenings.	
Connection Cost	Local Phone Call
50p/hr Evenings	
Sign-Up	Free
Subscription	6.50 pounds/Qtr
Online Software?	Yes (BBC C64 Spectrum Amstrad)
Telex	50p/400 chars
Incoming Free	
Contact	01-822-1122
Features	
NUA	A923411002002018

The FORCE

Time Charge	11p/min Daytime
3.5p Evenings	
Connection cost	Call to PSS + PSS to
Gold (Or 2.5p/min (300) 3p/min (1200) added to online charge	
Sign-Up	Free
Subscription	5 pounds a month
Online Software?	No
Telex	5.5p/100 (UK) 12p/100 (Eur) 18P/100 (USA)
Contact	051 928 4142
Features	A mail and filing system based on the ITT Dialcom system which BT now owns. One to one chat. International mail to other Dialcom systems. Telex.
NUA	A21920100484

TABBS

Time Charge	None
Connection cost	Normal phone call
Sign-Up	Free
Subscription	Free
Online Software?	No
Telex	No
Online Software?	Apple II Iigs and Mac
Features	A mail and helpline system featuring large Apple software library Open access to all callers but with closed areas for Apple2000 members. Leave your membership number at logoff for access to closed areas
Data Line	0225 743797

EASYLINK (Mercury 7500)

Time Charge	Free except when uploading to mail when 10p/min
Connection Cost	Call to PSS + PSS to
Easynet	
Sign-up	40 pounds
Subscription	12.95 pounds/month
Online Software	NO
Telex	25p/400 chars (UK) 50p/400 chars (Euro) 18p or 14.25p/100 (USA)
Contact	01-847-6070
Features	Aimed at the Telex market
NUA	A212300232

ONE to ONE

Time Charge	First 30 secs FREE then 10p/min at all times.
Connection Cost	Call to PSS + PSS to
One to One	
Sign-Up	50 pounds
Subscription	5 pound min Invoice
Online software?	NO
Telex	10p/200 chars (UK) 20p/200 chars (Euro) 35p/200 chars (USA)
Contact	01-351-2468
Features	
NUA	A212301281

DATASOLVE

Time Charge	1.33 pounds/min
Connection Cost	call + PSS
Sign-Up	40 pounds min
invoice in first month.	
Subscription	None (Pay for what you use)
Online Software?	NO
Telex	NO
Contact	09327-85566
Features	Home of WORLD REPORTER. A keyword search database of magazines and newspapers like The Guardian, Telegraph, Today, AP, Washington Post.
NUA	A213300124

MUSE

Time charge	About 2 pounds an hour while in the game area.
Connection Cost	Call to PSS + PSS to
Muse.	
Sign-Up	Includes 30 units (3hrs) free time
Subscription	None
Online Software?	NO
Telex	NO
Contact	01-608-1173
Features	A Multi-User-Dungeon game with mail and CB
NUA	A21880100300

You must have a PSS account in order to access databases shown with a NUA. This is a subscription service of British Telecom. It is not necessary to have a PSS account to access Telecom Gold.

OTHER DATA BASES

PEOPLE/LINK

Time Charge	(PLINK) (24hr non Prime)
\$4.95/hr	
Connection cost states (see below)	Call to PSS + PSS to
Sign-Up	\$10
Subscription you use)	None (Pay for what
Online Software puters	YES For most com-
Telex	NO
Contact	312-670-2666
Features	Partyline (CB). A
very good mail system.	Sigs with databases
for programs.	
NUA	A9311031200070 or A93106*DPLINK

MODEM CITY

Time Charge rates)	\$1.50/hr (70% off
Connection Cost	As Plink
Sign-Up	\$25
Subscription	\$5 min Invoice in
months that the service is used.	
Online Software	A little (apple, MS-
DOS, Coco, mod100)	
Telex	NO
Contact	617-757-6369
Features	StreetTalk (CB). Mail
which can load files stored on the system.	
Mostly used by American School teachers. UK	
Users get 70% discount on US rates.	
NUA	A9311040100612

COMPUSERVE

Time Charge	(CIS) \$6/hr
Connection Cost	As Plink
Sign-up	(buy starter pack
\$35 includes \$25 online time)	
Subscription	\$10/Month for
Overseas billing address	
Online Software?	Yes in sigs for most
computers	
Telex	Yes in and out
Contact	614-457-8650
Features	The Biggest of the
American systems and the first to introduce a	
"CB Simulator". Sigs for computers and Pro-	
fessional groups. Mail (not the best). Each user	
is allocated 128K of free storage. On line Games	
like YGL.	
NUA	A93132 or
A9311020200202 (better)	

SOURCE

Time Charge	\$7.50/hr after 6pm
UK Times (300)	
Connection Cost	As Plink
Sign-Up	\$30
Subscription	\$10/month Min
invoice (includes \$9 online time)	
Online Software?	Yes in sigs and for
sale.	
Telex	No

Contact	703-821-8888
Features	A news service with
keyword search of most databases. Chat (CB)	
has been added. A professional service, the	
users tend to be "Using" the system for work not	
play.	
NUA	A9311030100156
(and more)	

BIX

Time Charge	\$9.00/hr evenings
\$12.00/hr daytime.	
Connection cost	As Plink
Sign-Up	\$25.00
Subscription	
Online Software?	
Telex	
Contact	
Features	
NUA	A9310600157878

DIALOG

Time Charge	\$10.00 /hr
Connection Cost	Call to PSS (PSS to
states included in time charge)	
Sign-up	Free
Subscription	None (pay for what
you use)	
Online software?	NO
Telex	NO
Contact	0865-730969
Features	A vast library of
publications that can be keyword searched.	
Run by Lockheed with hundreds of databases	
for all professional needs.	
NUA	A21300120 (NDIALOG0060SQ)

DELPHI

Time charge	\$7.20/hour
Connection Cost	As Plink
Sign-Up	Sign-up Pack for
\$49.95 (with 2 hours usage)	
Subscription	None. pay for what
you use.	
Online Software?	
Telex	
Contact	617-491-3393
Features	
NUA	A93106906015

PACKET SWITCHING COSTS

Both PSS and Mercury 5200 charge in Time and Volume for international calls. A one hour call to the United States can easily use 1000 packets or 2 Kilosegments. So a PSS call would be £13.50 and a Mercury call £10.70. (1K £9.00 and £7.90 4K £22.50 and £16.30) These charges can be even higher if continuous data is involved, for instance when downloading software costs may be up to £40.00 an hour.

Inland PSS calls are £1.80 per hour in daytime and £1.65 per hour in the evenings.

Microsoft Word 3.0

Keyboard Commands

Geoff Wood has compiled this useful summary of available commands

Devotees of Word 3 will know that you rarely need to use the mouse. Almost all commands can be issued from the keyboard by using a combination of the Command, Option and Shift keys with a character from the keyboard or by using the keypad.

The Quick Reference Guide that comes with the Word 3 manuals shows the keyboard commands grouped by function. But there is no list that shows the commands grouped by the initial character. I created my own list, which is printed here for the convenience of other users.

Although some of the commands are difficult to remember (there are 150 commands and operations that can be performed with the keyboard instead of the mouse), there is a kind of logic to most of them.

The more commonly used menu commands such as New, Open, Save, Print and Copy follow the Macintosh convention of holding down the Command key and pressing the initial letter of the command. Clearly, not all the commands can be alphamnemonic. The Find command is Command-F but the Footnote command is Command-E. The Ruler command is Command-R but the Repaginate command is Command-J.

Holding down both the Shift key and the Command key before you press a character key usually performs a formatting operation. Thus Command-Shift-B switches bold face on or off, U switches

underlining on or off and I switches italic on or off. C, J, L and R in conjunction with Command-Shift cause selected or subsequent text to be centred, justified, left aligned or right aligned. You can also use N and M to 'nest' or 'un-nest' the left margin to the next or previous tab position. F and H offer indented first line and hanging paragraphs respectively.

Command-Shift-> and < cause selected text to change to the next font size up or down. Command-Shift-E allows you to change fonts by typing the font name (or the first letter) and pressing Return.

Incidentally, you don't need the mouse to select text. Just locate the insertion point (using the arrow keys or keypad keys) at the start or end of the text you wish to select, then hold down the shift key and use the arrow keys or keypad keys to select the text.

Some commands require the use of the Option key with the Command key. These include C and M to copy or move text without the need to paste, Z to move the insertion point to the previous location and W to activate the next window. There are also some commands which were designed for the old keyboard (with no keypad) but which still work on the full keyboard. These include J, K, L, and ; which move the insertion point forwards or backwards one character or word at a time and O, P, period and comma which move the insertion point up or down a line or page at a time.


The advantage for touch typists is that you do not have to move your hands to the keypad to move the insertion point.

As far as I know, only one command requires the Option, Shift and Command keys to be held down. This is S which opens or closes the footnote window.

My favourite command is Command-Tab (or keypad period) which selects the menu bar. You can then drop a menu down either by pressing the initial letter (though F always selects File, not Format or Font) or by using the right and left arrow keys or by pressing a number (not on the keypad) from 0 to 7 (or 8 if you have a Work menu). Menu commands can then be selected either by using the up and down arrows or by pressing the initial letter of the command. So Command-Tab F P Return gives Page Preview.

The keyboard can be used instead of the mouse in Dialog Boxes. So if you use Command-M to bring up the Paragraph dialog box, you can use Command-Tab (or keypad period) to 'underline' the options in turn and Command-Spacebar (or keypad zero) to 'click' the option. Some options can be selected by holding down the Command key and pressing the initial letter of the option. Thus Command-C usually operates the Cancel box.

There are some operations which, as far as I know, cannot be performed from the keyboard. These include setting the right indent marker and tabs in the ruler, choosing icons from the Page Preview selection, performing an Option select for sorting or calculation and, my pet hate, operating the 'Yes' button on the dialog box which asks if you want to replace the existing file with the 'Save As' command. If anyone knows the answer to these problems, please let me know via Apple2000.

Despite these few shortcomings in the keyboard commands, Word 3 is still my favourite word processing program. 

Using menus

Cmd-Tab
Keypad period
0 to 8
Left arrow

Highlight menubar
Highlight menubar
Pull menu down
Pull menu down

Using menus

Right arrow
Down arrow
First letter
Return

Pull menu down
Highlight command
Highlight command
Actuate command

With Command Key only

A	Repeat last command
B	Style
C	Copy
D	Character
E	Footnote
F	Find
G	Go to page ...
H	Change
I	Insert graphics
J	Repaginate
K	Glossary
L	Spelling
M	Paragraph
N	New document
O	Open
P	Print
Q	Quit
R	Show/hide ruler
S	Save
T	Define styles
U	Outlining
V	Paste
W	Close
X	Cut
Y	Show/hide ¶
Z	Undo
=	Calculate
?	Help
~	Sticky hyphen
	Optional hyphen
	Switch to right screen
	Switch to left screen
\	Return to Switcher
Comma	Use QuickSwitch
Period	Cancel last command
Delete	Insert glossary entry
Spacebar	Sticky space

With Command & Shift keys

A	Bold on/off
B	Centre text
C	Outline on/off
D	Font change
E	Indent first line
F	Side by side paragraphs
G	Small capitals
H	Italic on/off
I	Justify
J	All capitals on/off
K	Flush left
L	Unnest paragraphs
M	Nest paragraph
N	Space above paragraph
O	Normal paragraph
P	Symbol font
Q	Flush right
R	Style
S	Hanging paragraphs
T	Underline on/off
U	
V	Shadow on/off
W	Hidden on/off
X	Double spacing
Y	
Z	Word underline on/off
	Double underline on/off
	Dotted underline on/off
\	Strike through on/off
/	Larger font size
>	Smaller font size
<	Superscript
+	Subscript
-	Plain text
Spacebar	

Command, Shift & Option keys

Open/close footnote window

Command & Option keys

A	Repeat last Find command
B	Move ins. point to next para.
C	Copy text (without paste)
D	Convert text to graphics
E	
F	Delete next character
G	Delete next word
H	Extend selection to character specified
I	
J	Move ins. point one word left
K	Move insertion point left
L	Move insertion point right
M	Select whole document
N	
O	Move ins. point one line up
P	Move ins. point one page up
Q	Paste special character
R	Search for formatting
S	Split window or remove split (For outlining)
T	
U	
V	Copy formatting
W	Activate next window
X	Move text (without paste)
Y	Move insertion point to start of previous paragraph
Z	Move insertion point to previous location
.	Intensify next movement
;	Move insertion point one word right
Comma	Move insertion point one line down
Period	Move insertion point one page down
	Change size of window
	Scroll up one line
/	Scroll down one line
\	Insert formula character
+	Add command to menu
-	Subtract command from menu
Delete	Delete previous word
Return	Insert ¶ mark after insertion point

Using the keypad to move the insertion point

1	Move to end of line
2	Move down one line
3	Move down one screenful
4	Move left one character
5	
6	Move right one character
7	Move to beginning of line
8	Move up one line
9	Move up one screenful
0	Move to previous location
Period	Switch on menu bar

Keypad with the command key

1	Move to next sentence
2	Move to next paragraph
3	Move to end of document
4	Move left one word
5	Move to top left of screen
6	Move right one word
7	Move to previous sentence
8	Move to previous paragraph
9	Move to start of document
0	Move to previous location

Special characters

Shift-Return	New line
Shift-Enter	New page
Command-Enter	New section

Software Cache

We take a look at the software on TABBS

The software libraries on TABBS are mainly of course for the Apple machines. There is however a large IBM & clone section as well. The Apple libraries are split into three main sections, Apple II, Apple IIGs and Macintosh.

>> APPLE 2 GENERAL <<

VIEWER.BNY	2560	Display Single/Double Hires pictures
IIGIF.BNY	25088	Display GIF files on Hires display
PHARMLBL.BNY	36096	Pharmacy Labelling program demo
ANALYST.BAS	6912	Let Eliza be the psychiatrist
FAST.BS	14848	A spreadsheet in Basic for Dos 3.3
FREEWRIT.BNY	13312	Friendly WordProcessor from P. Lutus
SWISH.EXE	4098	A kaleidoscope graphic for DOS 3.3

>> APPLE 2 UTILITIES <<

RAMDISK.EXE	5248	Create a DOS3.3 ramdisk from 80col card
LABL18.BNY	12288	3.5 disc label printer utility
MACDOWN.BNY	17792	Extracts data from MacBinary files
ATAW.EXE	4573	Convert Binary files into Text files
BOOT6.BNY	256	Boots Slot 6 directly from ProDOS ...
DOS33.BNY	23296	Co-Exist Dos3.3/ProDOS on large devices
MCEDIT.BNY	6912	Utility to edit machine code bytes
PRODOS.BAG	10240	Mixed bunch of ProDOS utilities
DISKEDIT.EXE	7680	Edit disk sectors with this utility
VIEW.EXE	768	Read TEXT files with the VIEW command
ECP8.DOC	7552	File describing ECP8 shell system
ECP8.BNY	74624	A command shell for ProDOS
DIVERSI.BNY	100608	Diversicopy for Dos 3.3 in Binary II
SIDER.BNY	1408	A utility for the Sider Hard disc
TEX.DOC	6528	Document file for Tex.Bny
TEX.BNY	11520	A textfile processor utility
EWENCPY.EXE	4098	Ewens much improved COPYA

>> APPLE 2 COMMS <<

BLU.BNY	30720	V2.27 of BLU with Squeeze
TIC.BNY	36864	TalksCheap ShareWare Comms V1.0
PACKER.BNY	9472	Packs/Unpacks any kind/size of disc ..
KERMIT79.BNY	86912	Kermit, supports many cards and GS port
SQUEEZE.BNY	14080	Latest version of Squeeze/Unsqueeze
KERMIT.BNY	93440	Kermit for the SSC and CCS cards
KERMIT.DOC	44416	Description of the Kermit program
GAZELLE.BNY	83968	Demo of Gazelle comms program
BLU.DOC	4808	Document file for Binary II
PROPACK.BNY	7808	A disk packer includes Doc file
TEX.DOC	6528	Document file for Tex.Bny
BNYTWO.DOC	2688	The Doc file for Binary II Protocol
BI2DOWN.EXE	4864	A Binary II downloading Utility
BI2UP.EXE	4736	A Binary II Upload for ProDOS
LIBRARY.BNY	14720	A Librarian Utility for Downloading
DWNDOSEX	8960	A Downloading utility for Dos

UPDOS.EXE	12032	A Dos 3.3 uploading utility
KERMITMC.BNY	14976	Kermit driver for PACE Mastercard

>> APPLE 2 DOC FILES <<

CI182.DOC	4998	Customise CopyII+ V8.2
STDCODES.BNY	96512	All the STD codes in an easy read file
PROAPP.REV	3712	Review of the Proapp hard disk
CABLE.REF	3328	Reference to all Apple cables
SIDER.ROM	1152	A review of a Rom utility for Sider

>> APPLE GS <<

ROSEY.BNY	37504	A cheeky SHR picture. View with ShrView
BRICKS.BQY	61312	Very good 'Break the Bricks' game
WAVE.BQY	19456	SHR picture of Hokusai's wave ...
MONALISA.BQY	20480	SHR picture of the Mona Lisa ..
BEE.BQY	18688	SHR picture of a Bee ..
WORM.BQY	14592	SHR picture of a sci-fi worm ..
MIND.BNY	16640	'Mind set on you' for the Music Studio
BINKS.BNY	9728	Binks song for the Music Studio
ENTERT.BNY	5376	Entertainer for the Music Studio
RAGS.BNY	10880	Ragtime tunes for Music Studio
BANJO.BNY	11008	Banjo songs for Music Studio
TAPEDECK	37760	Document and TapedeckGS program
SHARE.BNY	96640	SHRVIEW program views any pic type
OTHELLO.BNY	25088	Othello for the GS, full doc file
ARTDEC.BNY	53248	ArtDeco font - put into Font Folder
BOUNCE.BNY	15488	Nice bouncing Apples display ...
DITHER.BNY	2688	An example of dither techniques on GS
DEBORAH.PIC	32896	A Super Hi-Res picture of Deborah
CHRISTIE.PIC	16512	Use this pic with ShrView file
COLORMND.BNY	25984	A game for the GS in glorious colour

>> APPLE IIG S UTILITIES <<

PANEL.BQY	19840	NDA to give Maclike control panel
CPSOVR.BQY	49024	APW/ASM source files for Panel.BQY
PRSCRN.BNY	1152	CDA to print the 80 column text screen
WAYSTATN.BNY	28288	Waystation for the IIGS (shareware)
SSTUDIO.BNY	47744	Very neat sound editor with cut-paste
FONTPAC.LIS	7168	List of all the FontPac fonts
FONTPAC.DOC	948	Details of the FontPac set of files
FONTPAC0.BNY	97152	Packed file of fonts A-B
FONTPAC1.BNY	131712	Packed file of fonts B-C
FONTPAC2.BNY	102400	Packed file of fonts C-F
FONTPAC3.BNY	102272	Packed file of fonts G-I
FONTPAC4.BNY	122624	Packed file of fonts K-M
FONTPAC5.BNY	110336	Packed file of fonts M-O
FONTPAC6.BNY	120320	Packed file of fonts P-R
FONTPAC7.BNY	129792	Packed file of fonts R-S
FONTPAC8.BNY	103552	Packed file of fonts S-T
FONTPAC9.BNY	71552	Packed file of fonts V-W
FONTPACA.BNY	108416	Packed file of system fonts A-G
FONTPACB.BNY	118784	Packed file of system fonts H-N
FONTPACC.BNY	127872	Packed file of system fonts V-W
RAMDISC.BNY	5376	Alternative RAM drive for P8
DATESDA.BQY	42112	Calendar reminder system DA
MTERMC.BQY	3456	CDA to access the serial port terminal
CASSETTE.BNY	14336	Utility to print cassette box labels
IMAGESET.BNY	4992	CDA to control Imagewriter settings
FUNPAK.BQY	86144	Assorted DA's and documents squeezed
DIVERSI.BQY	81920	The Diversi system squeezed
SQUEEZE.BNY	11904	Squeeze and Unsqueeze Utility for .BQY
PBCDA.BNY	18176	Load CDA's from ProDOS 8
TIE.BNY	23552	Icon editor with full docs
ICONS.BNY	1536	Desk accessory Icons for Icon folder
MACDOWN.BNY	17792	Extracts data from MacBinary files

ICONMKER.BNY 11392 Create and edit icon files for Finder
 CONV2.BNY 9856 NDA Ver.1.1 of Conversion Table
 CONV.BNY 8832 NDA:Table of common conversion factors
 MASTER.BNY 7936 Master CDA system for multiple CDA's
 LABELS.BNY 13568 3.5 inch disc label maker
 SOUNDS.BNY 101376 Sound and pic system for boot and beep
 PANIC.BNY 9856 NDA for when the boss is coming ...
 MRMOUS.BNY 9344 NDA displays mouse position in window
 TXTDS2.BNY 5760 Text file reader for the Finder
 SHOWFI.BNY 55040 Showfile utility program
 TUF.BNY 3712 Textfile reader for ProDOS 16
 CTLNDA.BNY 19584 NDA to set slot assignments
 DEARC.BNY 64512 Un 'ARC' files .. will dearchive ARC'ed
 NLIST.BNY 37888 Disassembler with labels (CDA)
 SHRTIM.BNY 8448 Timed saving of screens (CDA)
 DIVERSGS.BNY 104448 Diversicopy/hack for the GS Bin2
 CDAS.BNY 25344 Classic desk accesories for the GS

>> APPLE IIGS COMMS <<

PROPAC.BNY 7808 A disk packer includes Doc file

>> APPLE IIGS DOC FILES <<

THXHNT.BNY 3584 How to cheat at Thexder and win
 FINDER.TXT 14080 GS Finder review from inCider Magazine
 GSNOTES.TXT 19456 Tech notes of GS internals etc.
 GS.APPLE 10752 Letters between P. Kemp and Apple re GS
 GSROM.TXT 8064 Details of the new ROM chip from Apple
 TYPES.DOC 3584 ProDOS8 and ProDOS16 filetypes
 ROMUPG.DOC 2944 Upgrade details for GS rom and VGC
 PROAPP.REV 3712 Review of the Proapp hard disk
 CABLE.REF 3328 Reference to all Apple cables
 CABLE.DOC 1841 IIGs to DB25 pin connections ..

>> MACINTOSH FILES <<

VIRUS.SIT 52480 Virus protection direct from Apple
 SCSIEVAL.SIT 51456 Evaluates SCSI hard drives
 REDRYD94.SIT 118272 RedRyder 9.4 communications program
 SUPERCNV.SIT 86784 Converts Superpaint files - Laser Bits
 PACKIT.SIT 55808 Packit 3 file transporter for .PIT files
 BAUSBUST.SIT 8832 Allow 1200/75 working from serial port
 KERMIT.SIT 52992 Kermit communications and documents
 PRETZLDA.SIT 17536 Desk accessory to access Prestel
 LIBRARY.SIT 55424 Disk Librarian and documents
 ICONEDIT.SIT 36352 Icon editors and information)
 FREETERM.BNY 31872 Freeterm 1.8 terminal program
 BACKGAMM.BNY 31360 The game of backgammon
 BRICKS.BNY 7680 The old game of Break the Bricks
 BOUNCE.BNY 14464 Bouncing Ball demonstration
 STUFFIT1.31 79232 Compresses/decompresses sets of files
 MCSINK41.SIT 39296 Text processor desk accessory
 MACCLONE.BNY 11520 Enables you to copy protected progs

>> MACINTOSH LISA XL <<

MACXL.DOC 5120 Hardware information for the MACXL/Lisa
 XLCOPY.BIN 3712 MACXL/Lisa disc copy utility
 XLBACK.DOC 69248 Macwrite document for XLBACK
 XLBACK.BIN 22656 Hard discs backup for MACXL/Lisa
 XLCOMP.DOC 4096 Lisa compatible Macintosh programs

>> MACINTOSH HYPERCARD <<

INIGO.SIT 137728 The adventures of Inigo the cat
 FINGERSP.SIT 161152 Sign language demonstration
 YAHTZEE.BNY 83328 The game of Yahtzee by Ian Summerfield
 MACTIPS.BNY 32896 Those tips you always wanted to know

>> MACINTOSH DOC FILES <<

XLCOMP.DOC 4096 Lisa compatible Macintosh programs

It is necessary to have a terminal or communications program that can download using the Xmodem protocol. On the Apple II you will find programs like Data Highway, Gazelle, Access II, Point to Point and MouseTalk are suitable. On the Mac I would suggest Red Ryder which is available from the Mac library of Apple2000. You should set the program to a word format of 8N1.

Apple II files are mainly encoded using the Binary II protocol, a suffix of .BNY is added to the filename when this has been done. To unpack Binary II files you should download BI2DWN.EXE if you do not have a suitable unpacking program. A much better utility is BLU. This is in itself encode with Binary II and so you will need to have BI2DWN.EXE first. On the Mac most files are packed using MacBinary and may be also packed using Stuffit or Packit. Red Ryder will see and unpack MacBinary files automatically. For Stuffit files (marked .SIT) you will need Stuffit. For Packit files (marked .PIT) you will need Packit.

The library is we hope a two way process, you are welcome to help yourself to any files you may want, in return we would ask you to upload any Public Domain or Shareware programs you may have. On that note, PLEASE pay for any ShareWare programs you retain and use. Only by doing so will the authors be encouraged to write more of their invaluable contributions to the Apple software market.



FREE SOFTWARE!!!

All of the software listed, plus much more besides, is available FREE from your TABBS bulletin board, one of our three E-mail services.

If you are an existing comms user but and want a free TABBS user guide, or if you want to know more about comms and would like a free copy of our beginners guide to Apple comms with our "cut-through-the-bull" glossary, contact us through the PO box and enclose a large stamped and addressed envelope.

Mac2000

Norah Arnold looks at topics of interest to the Macintosh owner.

New Machine Icons

As you may have noticed, there are new machine icons just below the line at the foot of each page, near to the page number. These have been put there in response to requests from readers for some indication as to which machine any article applies.

As far as the Macintosh section is concerned the icons will be used in the following manner. Any article or information which is general or applicable to Macintosh Plus, Macintosh SE and Macintosh II, will have the small Macintosh icon. If any article is Macintosh II specific then the Macintosh II icon will be used at the bottom of the page.

Virus Information

Apple Computer UK have been kind enough to supply some information on the Scores virus. The written information on the virus is printed a little further on in this issue.

The virus detection and removal programs are available on a library disk in the usual manner, but for anyone who wants to have the programs as quickly as possible we are supplying them by a different route. If any member mails a disk to the P. O. Box also enclosing a stamped, addressed envelope, only the programs relating to the virus will be placed on the disk and it will be mailed back as soon as possible.

Unfortunately, we have found one system which had been corrupted by the Scores virus on a disk submitted by a member. However, when checked with the detection program, most of our recently acquired disks appear to be clear. Do read the article on the

Scores virus for more information.

There is also a commercial program called Safer Mac™ which comes in two parts. Firstly, Safer Mac™ lets you know of any changes that have been made in your programs. It also includes the ability to find the N-Virus and



stop it from growing. There is no evidence that the commercial program performs any better, or gives any facilities which are not offered by the programs which you can obtain from Apple2000 at no more cost than the price of a stamp and a trip to the post box. For more information on Safer Mac™, contact your dealer.

Aldus PageMaker 3.0

Aldus Corporation's PageMaker desktop publishing software integrates text and graphics, allowing Macintosh users to design, edit, and produce high quality printed communications within an office setting. It centres production firmly in-house, giving users flexi-

bility and control over the design and production process.

The newest version for the Macintosh, PageMaker 3.0, builds on the strengths of Aldus' original interactive desktop publishing platform and attempts to address the communication needs of both business and creative professionals. Specifically, it adds support for long documents, expanded graphics capabilities, user interface enhancements, and a variety of built-in templates.

Now PageMaker 3.0 gives automatic text flow through an entire document, and the text is flowed over successive pages without interruption so that long files can be placed quickly. While the text is flowing in, PageMaker will turn the pages for you, displaying the incoming text and page design. The text will automatically wrap

around graphics and will retain information about paragraphs, alignment and indentation. The text flow may be stopped at any time by a click of the mouse. PageMaker will also create new pages automatically if the text reaches the end of the document with still more to flow in. For those who still prefer to have the same level of control as in PageMaker 2.0, you can select 'manual flow' and then the incoming text will always stop at the bottom of each column.

PageMaker 3.0 now supports style sheets, which save time with repeated formats for headlines, subheads, body copy and other text. The style sheet is a collection of formatting instructions that define the way the text should look. Each style has a name such as 'Header 1,' and also formatting information such as type style, point size, line spacing and colour. When the user defines a style, PageMaker will automatically add it to the Style Palette. The Style Palette can stay visible and instantly available in a corner of the screen so you can quickly click on any style to make a change in your document.

By first setting up a style sheet, then applying it to your document, you can format text automatically as it comes into PageMaker. The text can then be reformatted simply by changing the

instructions in the style sheet.

Styles can be applied directly to text in word processing, database or spreadsheet programs by 'tagging' it with style names. If the style names match the ones in the PageMaker style sheet that you chose for that document, PageMaker automatically applies the styles as the text is imported, so you do not have to reformat any of your copy.

PageMaker now provides twenty page templates to help non-designers to create consistently formatted publications. Most of these are specifically for the business user and include reports, bulletins, flyers, proposals, company directories, calendars, price lists, newsletters, overheads, speaker notes, slides, invitations, name tags, etc. Each template is a preformatted page design complete with layout grids and placeholders so that you know exactly where to position your own text and graphics.

When you use one of the templates, PageMaker will automatically open a copy of it so that the original is never lost. Also, when you save a file which has been made using one of the templates, PageMaker adds the template file extension to the name that you save it with, so that you can quickly locate the template used for any particular file.

PageMaker's 'replace' option can be used to substitute your own text for the simulated text in the template. Also any graphics in the template may be replaced in the same manner.

One of the more interesting changes is that PageMaker 3.0 automatically flows text around, through or over graphics in order to create special visual effects. The text will automatically flow in a rectangle around any imported graphics until it is told to do otherwise. The flow of the text wrap is based on an invisible 'graphics boundary' which may be left as a rectangle or shaped to match the exact contours of any graphic. When you click the mouse on top of any illustration, the graphics boundary appears as a dotted line with a tiny diamond-shaped handle at each corner. To begin to reshape the graphics boundary

around the illustration, all you do is to click on a handle and drag it in the appropriate direction to create the kind of text wrap you want.

You can easily reshape the graphics boundary around even the most subtle curves by clicking to create additional handles, as many as you want, and then dragging them into place around the shape of the graphic.

Once you have redefined the graphics boundary exactly as you want it, PageMaker will automatically flow the text to conform to the contours of the graphic. If you later move the graphic to another column or page, PageMaker will reflow the text, remembering how it should wrap around the graphic in its new position.

PageMaker 3.0 also contains a number of built-in controls for modifying scanned photographs

ated to add coarseness, or the number of tiny dots can be increased to make the image look more like a glossy photograph.

PageMaker 3.0 now supports spot colour, always supposing that you have a Macintosh II with an appropriate colour monitor. The program automatically adds each colour you create to a 'colour palette' which stays on your screen for convenient access. The user selects the text or object to be coloured, points to any of the colours listed in the palette, and clicks the mouse. Blocks of text, individual characters, lines, screens and graphics drawn within PageMaker may all be coloured. You can also tint any bit-image illustration or scanned photo which you place within PageMaker. When you are satisfied with the way the colours are, then you are ready to produce the overlays necessary for a commercial printer.

Business Class

Business Class is one of Activision's entries into the HyperCard software market. Like Focal Point, their other HyperWare product, Business Class displays information in a pleasant enough manner. As well as having the flexibility to alter the stack to suit personal tastes, it also provides easy access to the stored information.

Anyone who travels a great deal in Europe should appreciate Business Class, which at the click of a mouse button will provide you with information about time conversions, phone numbers of major airlines, train stations, hotels, hospitals and car rental agencies. It will also tell you the type of electric converter necessary in any location, major holidays and the latest currency conversions. Admittedly it is necessary to enter the current currency conversion rates, but this is not a long job if you have the information to hand.

One drawback is that not all of the countries of the world are represented in Business Class, and for the foreigner travelling in the USA there is a strange lack of information. More information can be obtained from Activision, 2350 Bayshore Pkwy., Mountain View, CA USA 94039. ■



and bit-images. Images scanned in the grey-scale tag image file format (TIFF) and bit-images created with paint-type programs can be modified even after they have been placed in PageMaker.

The image may be darkened to create a dramatic effect, or lightened to enable text placed on top to be readable. The contrast between an object and its background can be heightened or lowered, and for special visual effects the angle and density of an image's lines and dots can be changed. By choosing a line screen, the frequency and even the angle of the tiny lines that make up the image can be altered. The dot pattern can be exagger-

Scores Virus

Apple Computer U.K. have supplied this article for the benefit of users.

The Scores Virus

© Howard Upchurch 1988

Distributed by the Mac Pack and the Dallas Apple Corps for all members of the Macintosh community.

Special thanks to John Cail, Doug Ruddman, Kelly and Cheney Coker, and Steve Schroeder for their assistance.

1. Introduction

A virus is an organism that attacks and feeds off a host until either the virus or the host dies. A so-called **Scores** virus has spread throughout the Macintosh community. This virus, however, is a nasty piece of software written by a demented individual. Just like a living organism, it reproduces itself and has spread like an epidemic. Rumours (and there are PLENTY!) are that thousands of U.S. Government Macintoshes – including those owned by NASA – are infected, and that the FBI is investigating the outbreak. In addition, Apple, other major corporations, and probably hundreds of thousands of business and private users are infected. This is NOT the MacMag virus, which was relatively benign and was inadvertently spread by Aldus in a few copies of *FreeHand*. It is NOT the nVIR virus, which so far has spread very little, according to published sources. It IS a virus that was purposely designed to spread itself as rapidly as possible. Scores will enter a disk as part of an application. It will spread to the System, then to other applications, some of which will be given to a friend or taken to work, spreading it even further. There is evidence that it can spread through a network.

Scores will damage programs, causing unpredictable problems. Its primary intent has not yet been discerned. Don't be the first to discover the evil purpose for which this virus was designed. Get it out of all systems in which it is located, and do it NOW!

2. Detection

Open the System Folder on all disks in your possession, especially hard disks. Look for two icons representing the Scrapbook File and Note Pad File. The System is infected if BOTH of them are there AND if both icons are generic document icons, i.e., blank dog-eared pages. The System is probably not infected if neither or only one icon is present or if the icons look like Macintoshes, the same icon used for the System and Finder. If the disk is infected, do not panic. This document tells how to remove the virus from the System and prevent its recurrence. If the disk is not infected, learn here how to protect yourself and to help someone else remove the virus.



Figure 1

3. Discussion of Macintosh Program Structure

Macintosh programs which are used to perform productive tasks are called **applications**. Com-

mon applications are *MacWrite*, *MacPaint*, and *Microsoft Word*. Other applications with which everyone is familiar are the *Font/DA Mover*, *HyperCard*, and *Teach-Text*. Many users do not realize that the *Finder* is also an application.

Items created by applications are called **documents**. A letter created with *MacWrite*, for instance, is a document. There are other items on a Mac like *System* and *General*, which are neither applications nor documents. These items, along with applications and documents, may be termed **files**. Generically, any item on a Macintosh which has an icon is called a file.

Macintosh files are composed of smaller groups of software called **resources** and **data**. Thus any Macintosh file may contain data, resources, or both. An application is comprised primarily of resources, a document primarily of data. Resources with which everyone is familiar are fonts and icons. Others of importance to this discussion are **CODE** and **INITs**. CODE is contained in virtually every application, for it is really the heart of the application itself. CODE is the set of commands which controls all the other resources. An INIT is a set of instructions which is loaded into the Mac's memory when power is turned on and a disk is inserted. INITs are executed in alphabetical order. Common INITs are *Suitcase* and *Pyro*.

Apple has provided an application called the *Resource Editor*, *ResEdit*, or *ResEd* for short. It is a necessary tool for both identification and removal of this virus, but it is quite powerful and beginners are urged to avoid any uses of this program other than those described here.

4. Analysis of Infected Application

The Scores virus seems to attack only files which have CODE resources, primarily **applications**. Although it is possible for **documents** to contain CODE, no specific examples are known. It should be mentioned that files which have been stored in the *Stuffit* format contain no resources at all, so a file saved or archived in that manner should be impervious to infection IF it

was clean when Stuffed.

To observe the infected application, open *ResEd*, and you will see a window like:



Figure 2

Selecting the infected application by double clicking on its name, in this case *ResEd* itself, we see



Figure 3

Opening the CODE resource by double-clicking on the name shows:

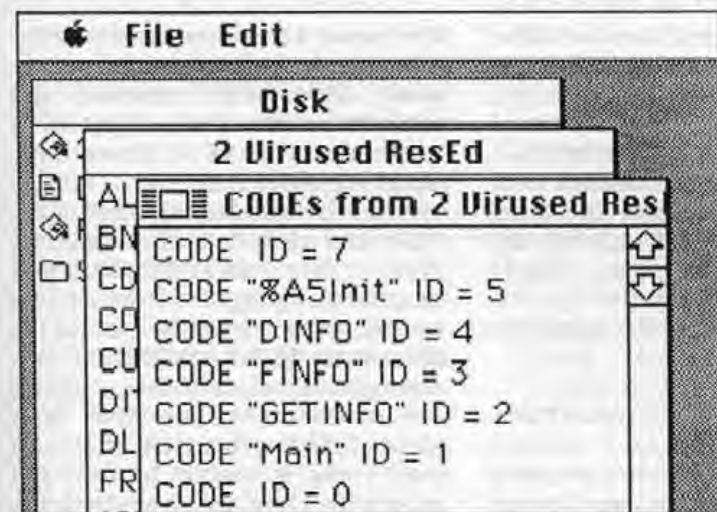


Figure 4

Notice that the first CODE on the list (CODE ID = 7) has an ID which is numbered two higher than the next highest (CODE ID = 5). Selecting this resource by clicking on it once and choosing Get Info from the File menu reveals a size of 7026 bytes, as shown in Figure 5.

This is the final proof that the application is infected. (An examination of an uninfected copy of *ResEd* would show that CODE 7 was not present.) In addition to

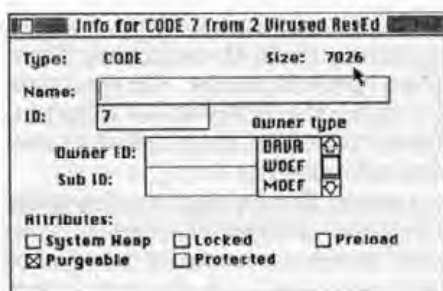


Figure 5

this easily detectable change, CODE 0 has been modified and there is at least one other alteration, the details of which are unknown to the author at this time.

5. Effects of Using an Infected Application

When an infected application is opened, its new CODE commands tell it to add several new pieces of software to the System Folder. Two of these are quite important because they provide the best clue that something is wrong: **Scrapbook File** and **Note Pad File**, as discussed in Section 2. Other changes the virus makes to the System Folder are less obvious: It

adds a **Desk-top** file and a file called **Scores**, from which the virus gets its name. These files cannot be observed from the *Finder* because they are invisible. Programs such as *ResEd* and *MacTools* show them to be there, however.

The virus also modifies the System itself, adding the following resources: atpl ID 128, DATA ID -4001, and INITs with ID's of 10, 6, and 17. With these new INIT resources in the System, the Mac is figuratively a fused bomb, ready to do damage the next time it is turned on.

6. Spread of Virus to Uncontaminated Applications

Because these new resources are primarily INITs, they are activated the next time the Mac is started.

Once initialized, the virus begins to execute the commands which cause it to spread. As the infected disk is used, the virus continually seeks uncontaminated applications. The present thought is that it searches in a random fashion at an interval of three and a half minutes. At times a disk drive will begin operating when nothing should be happening. This occurs because the virus is writing its code resource to another application. After a long enough period of time, every application on the disk will be infected, apparently whether it has been used or not.

7. Prevention of Occurrence or Recurrence

CE Software has released into the public domain a utility called **Vaccine**. Vaccine is a "cdev," which means "Control Panel Device." Copies are **free**. Get it from a Disk-of-the-Month (DOM) at a user group meeting or from a telephone communication service such as CompuServe or GENie. To use it, place the Vaccine icon in the System Folder. Select Control Panel from the Apple menu and you will see "Vaccine" listed right under "General." Close examination will reveal that the name begins with a space before the "V." Leave it that way so it will be the first thing that operates when the Mac is started or reset. Select the Vaccine icon and read the instructions. In case you do not understand them, putting an "X" in the top and bottom boxes is recommended. Be sure to restart the Mac after setting Vaccine in order to start it working.

To help assure that you have a clean copy of Vaccine, select the Vaccine icon while at the *Finder* (not the Control Panel) and choose Get Info from the File menu. Verify that the size is 11,875 bytes and that the creation date is Saturday, March 19, 1988, at 11:49 PM. We must assure that no one creates a bogus version of this fine work. And thank you, CE Software!

After Vaccine has been installed, look for the following symptoms when using the Mac or opening an application; each is an indication that the virus is in operation:

- (1) Vaccine randomly asks for permission to alter a resource.
- (2) Opening an application

triggers Vaccine.

(3) Opening a resource causes a bomb (usually ID = 02).

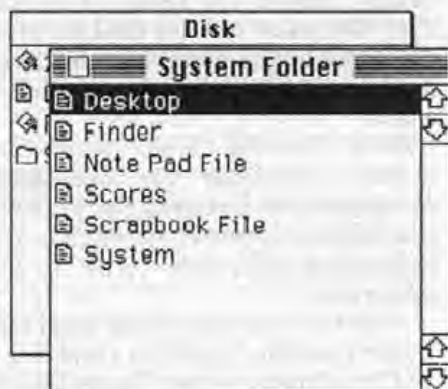
(4) Opening an application causes the Mac to hang up.

Do not put a copy of any application on a hard disk until it has been checked for contamination. Do not run a new copy of any program until it has been checked out. Examine any program before uploading it to a Bulletin Board.

8. Removal of Virus from System

Since the relatively recent discovery of this virus, several programmers are working on developing software which will do any or all of the following: detect the presence of the virus, remove it from the System Folder, detect infected applications, and/or repair the infected applications. As of this writing, however, none are available. What follows is a step-by-step procedure that will enable you to clean up a disk with or without one or more of these utility programs.

First, install the **Vaccine** utility if it is available and reboot the Mac. (**Note:** If you see a bomb, a hangup, or a message from Vaccine when booting, the *Finder* is contaminated. Boot with a clean floppy and replace the *Finder* on the virused disk.) Open *ResEd*. (**Note:** If you see a bomb, a hangup, or a message from Vaccine when trying to open *ResEd*, *ResEd* itself is contaminated. Replace it with a clean copy.) At this point you will see the files at the so-called root level of the disk, resembling Figure 2. Notice the file called *DeskTop*. This is NOT the bad file. Scroll through the window and open the System Folder by double clicking on its name. You will see a window resembling Figure 6.



Select the Desktop file by clicking on it one time, then choose Clear from the Edit menu. Do the same thing for the other three infection files, Note Pad File, Scores, and Scrapbook File.

Locate the System and double click on its name to open it. You will observe a window similar to Figure 7.



Figure 7

Locate *atpl* and open it by double clicking. Select *atpl* ID 128 and Clear it by using the Clear command under the Edit menu. Close *atpl* and open *DATA*. Clear *DATA* ID -4001. Close it and open *INIT*. Clear ID 10, ID 17, and ID 6. Close all windows except the root level window and save the changes when asked if you wish to.

Important: A virgin System (4.1, at least) from Apple does not contain either resource of the types *atpl* or *DATA*, but some programs — *LaserSpeed*, for one — legitimately place them in the System. Remove only the ID numbers listed.

The System is now free of infection, but the work is far from over. When Vaccine has been properly installed on the disk, opening an infected application will cause either a bomb, a message from Vaccine, or the Mac will hang up. In any case, the application should be examined more closely: Use *ResEd* to open the CODE resource of the suspected application. If the top CODE ID is two numbers higher than the next highest, Get Info on it. If the size is 7026, as shown in Figure 5, it is an infected application. Throw it in the trash because it is unusable and will reinstall the virus into the System if it is run with Vaccine off or not installed.

Even if you do not yet have a

copy of Vaccine, use *ResEd* to examine every application on your disks. Notice the small icon next to the *Font/DA Mover* name in Figure 2. This icon will help in determining which files on the disk are applications. Check ALL of the applications in the manner described above. It is easy to overlook some of the smaller and perhaps lesser used ones like *Font/DA Mover* and backup programs. Remember, the *Finder* is an application. And an application does not have to have been run for it to be contaminated.

Experiences with this virus over the past four months have shown this to be an effective and relatively simple way to clean a disk. There is nothing wrong with replacing the System, replacing the System Folder, or re-initializing the hard drive. These, however, are extreme measures and are not considered by the author to be necessary. In any case make sure, with *ResEd*, that all applications put back on the hard drive are clean, especially if Vaccine has not yet been installed, or the whole cycle could begin again.

For more advanced users: After it is felt that all infected applications have been removed and replaced, run *Disk Express*, if available, with the Erase Free Space option turned on. This will cluster the data to the start of the disk and zero out all remaining space. Then use *Fedit*, *MacTools*, or a similar program to search for two strings virtually unique to this virus: **VULT** and **ERIC**. Each string is all caps. If these strings are nowhere on the disk, it is clean. If they are still there, do everything possible to find out which file they are in and remove it from the disk. Repeat this until there is no ERIC or VULT. (The only application so far discovered which contains the VULT string is one called **DD Editor**, and it does not contain ERIC.) Searching a previously infected disk in this manner without having run *Disk Express* first does no good because the infected files were not actually erased when trashed and the remnants are probably still on the disk. In other words, the presence of ERIC and VULT at this stage of the removal process does not mean that the disk is still infected, but their absence DOES

mean that the disk is clean.

9. Removal of Virus from Infected Applications

Unfortunately, at this time there is no known method to repair infected applications, and perhaps there never will be. There is evidence that when the virus attaches itself to an application and inserts the new CODE resource, at least a part of the new CODE is apparently written over some part of the original application software, permanently destroying it. If true, this would account for the many strange effects of the virus because the missing code would be different in each application. There would have to be a separate fix for every application. The safest thing to do is to trash every bad application from the disk and replace it with a known clean copy. If there is no clean copy backed up, save the infected version on a floppy in hopes that a fix will be found.

10. Comments

Cleaning the virus from one disk will not fix the problem. ALL Macintosh disks must be clean or the problem will be around for a long, long time. And not just YOUR disks: EVERYONE'S disks! After you are familiar with the problem and its solution, share your knowledge. Make as many reproductions of this document as you wish to and give them to anyone with a Mac. It is copyrighted in the hopes that the editorial content will not be altered, but permission is given for the widest possible distribution. Print copies in your club or company newsletter. Visit dealers and see if they are virus-free. Help them spread the word. Do what you can — it will cost you only a little time, not money.

Why am I taking the time to create this document? I had the virus as early as November of 1987, but dismissed the problem as an offshoot of MultiFinder, due to the fact that the virus struck me just as I had decided to quit using MultiFinder and return to using System 4.1. I spent many hours of work over several weeks figuring it out and ridding myself of its effects. At the time I did not recognize it as a virus, and for that I am very sorry. I should have pounded on Apple's doors relentlessly ask-

ing about this problem. Possibly someone there would have recognized it for what it was, early enough to prevent the present massive outbreak of the problem.

I have enjoyed my Mac for well over four years now. I have created three fonts with it, one shareware and two that have actually been published. I have had fun with my Mac, and I have earned money with it. I am a member of two Macintosh clubs and have made many good friends because of this small computer. I can't stand by while some jerk destroys so much of my life. The time has come to repay the Mac community and this is my way.

Help me. One hates to publish a phone number in a document designed for public distribution, but without it you could not relay any important information. Please call only from 8 AM to 8 PM Central time, and only if you have found some information not in this document. Long distance callers, please leave a complete message on the answering machine if it answers, as I cannot afford to return many long distance calls.

Both User Groups of which I am a member have access to AppleLink, a worldwide communications network operated by Apple Computer, so any new information can be relayed directly to the people at Apple who are working on solving this problem. And thanks for any help.

Howard Upchurch
3409 O'Henry Drive
Garland, TX 75042
(214) 272-7826

I have reported information as I have found it. If there are any errors in the above, I apologize but ask not to be held responsible. Some statements may prove false or incomplete as more information comes to light.

**Please note that the Vaccine and Ferret programs mentioned in this article are available from the Mac Library.
Ask for Disk No 906**

The MacEurope Magic ToolBox™

MacEurope brings you the opportunity to have a much bigger floppy than anyone else. A full 10MB of crushproof data and programs. When we first saw this device we were stunned. Faster than Bernoulli, we thought, and easier to spell. Seemed a winner to us. Much more advantageous price/performance ratio (i.e. cheaper) and cartridges you slip into a pocket rather than a suitcase.

Plus I can
take it home
at night...



Infinite Storage £3 a megabyte.

promac engineers have weaved a spell over technology to achieve a system which is faster than many fixed SCSI disks, yet with the security, convenience and really low expansion cost you can only get from a removeable medium.

Accountants, publishers, students.
Spycatchers.

ProDrive 10 is the disk for everyone.

Stocked by MacEurope Dealers. If yours doesn't have stock, or you don't have a dealer, please call us.

Literature and solid advice.

From MacEurope. Of course.

promac distributed exclusively by MacEurope.
Magic ToolBox trademark registered to MacEurope.



The Granary, Trowse Bridge,
Bracondale, Norwich NR1 2EG, England.
Tel: (0603) 630636

Fax: 0603 630374

Upgrading the Apple

Part 3 of Tom Wright's experiences in changing from Apple II to Mac II.

How quickly time flies by of late, by the time you read this lot I shall probably have had a good smacking for being late with my copy for this issue of the magazine. Our new organisation will have struggled through its first issue of the magazine since Jim Panks had to bow out and, hopefully will have managed to maintain the high standards set by Jim during the last couple of years.

Problems with WP

My further adventures into II land have included the derivation of considerable pleasure from the SC. Output from it is, for a 300 dpi printer, crisp and very acceptable in appearance with just two reservations so far. Although the SC manual says that multiple copies are achieved simply by double-clicking on the copies box and typing in the required number, I can double-click until my clicking finger falls off but all I get from material generated in the word processor is one copy! This oddity appears to be confined to output from the word processor so far as all the other applications that I have tried will produce as many copies as I want. One difference between the word processor and the other packages that I have noticed is that the 'number of copies' box is located in a different place with the word processor. Any ideas will be welcome.

Problems with Graphics

The other problem was/is that my only attempt to print a graphic resulted in severe fall-off of image density down the left hand side of the print: I haven't had time to do much in the way of tests with this fault but I did find that if I took the toner cartridge out and rocked it before replacing it the problem

was cured for one copy. I mentioned it to one of the chaps at my dealer and he suggested using the cleaning rod, I'll let you know if that cures this strange problem (ie. strange thing to encounter with a new cartridge and printer). Upgrading the SC too is high on my list of requirements, but before doing so I would like to understand the reason for the SC being linked to the II via a SCSI cable when the NT and NTX are linked by AppleTalk. 'Like' is the qualifying word here since at the end of the day provided that the machines do what I want it really doesn't matter to me how they do it. Before the next magazine issue appears I'll have tried O.H.P transparencies through the SC and will know if they are as good as they are said to be.

The periodic instability in my monitor display appears to be gradually putting itself right, during the last few weeks it has only been apparent on a couple of occasions per week, I'm keeping my fingers crossed. While on the subject of the monitor it is interesting to note that the originally very rapid appearance of an image on the monitor following power-up has slowed considerably. Unfortunately I didn't make a note of the original time so cannot provide a clearer comparison for you.

Repetitive (ie. enforced) use of the mouse has predictably conditioned me to accept the thing more easily than in the past. I still fret over the delays resulting from its unnecessary employment however (ie. the occasions when there is no alternative keyboard command), so perhaps there is some hope for me yet with the mouse brigade.

My very limited spare time is now largely occupied with trying

to decide whether:

1. a flatbed scanner really is a better bet than a continuous feed scanner.

2. is a large screen monitor worthwhile, and if so which one?

3. is there an alternative to the glare of the 'paper white' display?

4. will I ever find a version of Loderunner that works on the Mac II?

If anybody has any advice/suggestions on any of these topics I'll be obliged, and they may well be of interest to other members.

Which Database?

Among my future software decisions lurks the dreaded Database, if anybody has any advice on that subject I'll be obliged. So far the only Mac Database that I have seen is dBase Mac and my conclusions about that package were anything but favourable. I've heard a lot about Omnis but not yet seen it demonstrated so how about one of you experts outlining your reasons for choosing the Database that you work with?

Timing the PC AT

While not entirely about the Mac, or even any other Apple machine, the next piece should be of interest to all Mac users who haven't used IBM's. I recently suffered an encounter with a (presumably) deranged IBM PC fan, or as he described himself "a power user who hasn't got time to play with toys". One of the saner statements made by the gentleman in question was to the effect that when using his PC AT he has virtually instantaneous access to the power of Lotus 1-2-3 when first powering up the machine. When I expressed a degree of surprise at the above statement I was informed that as an Apple user I wouldn't be familiar with the AT's power features, nor would I be used to powerful software such as DESQVIEW. Yes I did ask him if he had ever used any kind of Apple and no he hadn't (didn't believe in wasting his time).

Well, having been made well and truly aware of what kind of twit I

am for wasting my time playing with toy machines like the Mac, I decided to find out exactly what he thought I was missing. I use AT's at work and so was able to time the sequence involving Desqview that he had been boasting about, you can do your own comparisons, or perhaps I'll do a MAC comparison for the next issue.

Start conditions for the test were:-

1. PC AT and monitor both turned off.
2. Lotus 1-2-3 System disk partially inserted in the high density 5.25" drive.
3. Desqview installed on the AT's hard disk.

Mins

- 0.010 Switch on AT
(switching on monitor is 'inside' work during wait for AT)
- 0.720 wait for C> cursor to appear (seat and lock Lotus System disk in drive during wait)
- 0.006 Type DV and press RETURN key
- 0.070 Wait for Desqview menu to appear
- 0.006 Select 'Open window' with arrow key & press Space bar to bring up 'Open Window' menu
- 0.020 Select 'Lotus 1-2-3' with five strokes of the arrow key & press Space bar
- 0.003 Press RETURN key
- 0.230 Wait for 1-2-3 to appear in small window
- 0.003 Press 'Alt' key to bring up Desqview menu
- 0.020 Select 'Zoom' with arrow key & press Space bar to achieve full size window
- 1.088 NOW READY TO LOAD A 1-2-3 FILE

Out of interest I also checked the sequence without using Desqview, producing the following times:

Mins

- 0.010 Switch on AT
(switching on monitor is 'inside' work during wait for AT)
- 0.720 wait for C> cursor to ap

pear (seat and lock Lotus System disk in drive during wait)

- 0.022 Type 'LOTUS' & press RETURN key
- 0.030 Wait for 1-2-3 Access System menu to appear
- 0.005 RETURN key
- 0.160 Wait for full screen 1-2-3 spreadsheet to appear

0.947 NOW READY TO LOAD A 1-2-3 FILE

Well then, my 'power user' friend appears to be accessing 1-2-3 the long way!

You can draw your own conclusions about how long it takes you to reach a similar stage when preparing to use Excel or MacCalc but I doubt that any bookmaker would expect any of you to admit to taking a minute to do so!

NB. In both of the above cases the 1-2-3 system disk was located in drive 'A' and only required pushing approximately 2cm to seat in the drive (plus turning the locking lever). My times were derived using a combination of MTM-1 and a stopwatch, if anybody doubts MTM's power features I'll be happy to demonstrate them at any time.

So there you have it. Obviously if you don't change software much during a working session you will not worry too much about start-up times, but if you encounter the same IBM fan that I did at least you'll be prepared.

Finally a very useful tip for those of you with young offspring. At present my II sits on a rather high old dining table which gives me a good working position as I can rest my wrists on the edge of the table. The table is too high for most youngsters to reach comfortably and it has occurred to me that if you want to reserve the maximum number of pennies for important things like Apples and software, get yourselves a high dining table and make the offspring stand at mealtimes. Since they will not be able to reach the table you should save a lot on grocery bills. Now where else would you get sound economic advice as well as Apple talk! 🍏

If you have any tips to help Tom Wright, please write to the P. O. Box.

The MacEurope Magic ToolBox™

MacEurope is a developer of professional publishing systems. Some of our best friends write wonderful productivity tools. We find them so useful (and we think you will, too) that we'd like to share them with you. For starters, look at these beauties. From Dave Johnson of Working Software Inc. in Monterey.



With an oath, I clicked Find File for the 43rd time that morning.

Findswell™

Sick to death of slow, boring searches through your hard disk?

Frustrated trailing through a maze of Folders? And having to use Find File again (and again) to remind you of the trail to your document.

You need **Findswell** to Locate, then Open. Instantly. Directly.

No going to the desktop. No folder fumbling. It's that simple. And foolproof.

Remembers all previous searches. Works within any program.

Stop wasting time. Bin Find File. Get **Findswell**. And cease that cursing for good.

£34.95

Spellswell™ spell checker/proofreader. **£49.95.**

Lookup™ checks as you type. **£49.95.**

Medical and Legal Dictionaries. £65.95 each.

If you don't agree our friends at Working Software produce wonderful software at fantastic prices, we'll eat the packaging. And you'll get your money back.

Stocked by MacEurope Dealers. If yours doesn't have stock, or you don't have a dealer, please call us. Literature, updates & support.

From MacEurope. Of course.

Working Software distributed exclusively by MacEurope. Trademarks registered to Working Software. Magic ToolBox to MacEurope.



The Granary, Trowse Bridge,
Bracondale, Norwich NR1 2EG, England.
Tel: (0603) 630636
Fax: 0603 630374

Top Macintosh software and hardware at huge discounts – 24 hour delivery guaranteed.

Wide range of computers, laserprinters and other Macintosh products at highly attractive prices, with guaranteed delivery and full technical support.

WORD PROCESSING

Word 3	£175.00
Write Now	£ 89.00
Word Perfect	£185.00
MacProof	£112.00
Thunder	£ 35.00
MacWrite 5	£ 95.00
FullWrite Professional	£265.00

DATABASE SOFTWARE

Reflex Plus	£155.00
Filemaker Plus	£135.00
Omnis 3 Plus	£255.00
Double Helix II	£360.00
dBase Mac	£275.00
4th Dimension	£520.00

BUSINESS SOFTWARE

Powerpoint	£170.00
Excel	£175.00
Works 1.1	£145.00
Trapeze	£150.00
Microplanner Plus	£335.00
Cricket Graph	£107.00
Hypercard	£ 35.00
MORE	£150.00
Cricket Presents	£255.00
MacCalc	£ 69.00
MacProject 2	CALL

DESKTOP PUBLISHING

MacPublisher III	£199.00
Pagemaker 3	£344.00
ReadySetGo 4	£305.00
Ragtime 2	£355.00
Scoop	£299.00
Quark Xpress	£450.00

GRAPHICS & DESIGN

Adobe Illustrator	£280.00
ImageStudio	£290.00
Cricket Draw	£180.00
MacMovies	£ 75.00
Laser Paint	£320.00
Canvas	£130.00
Superpaint	£ 65.00
Aldus Freehand	£285.00
Fontographer	£209.00
VideoWorks II	£120.00

MacDraw II	CALL
MacPaint 2	CALL
Pixell Paint	£285.00

CAD/CAM

MiniCad	£325.00
MacDraft	£169.00

LANGUAGES

Turbo Pascal	£ 55.00
Lightspeed C	£105.00
ZBasic	£ 69.00

ACCESSORIES

MacPlus/SE & Keyboard	
Dust Covers	£ 15.00
MacPlus Carrying Case	£ 55.00
Mac SE Carrying Case	£ 65.00
ImageWriter Carrying Case	£ 49.00
Mouse Mover	£ 15.00
MacTilt stand for MacPlus and Drive	£ 68.00
MacTilt SE	£ 68.00
Teak Roll Top Cabinet (45 disks)	£ 17.00
Teak Roll Top Cabinet (90 disks)	£ 25.00
Laser Toner Cartridges (Black)	£ 79.00

COMMUNICATIONS

Red Ryder	£ 65.00
Tops (Mac)	£122.00
Tops (IBM)	£264.00
MacLink Plus with cable	£165.00

UTILITIES/DA'S

Super Laser Spooler	£ 89.00
Multiuser Version	£199.00
Grappler	£ 79.00
Copy II Mac	£ 22.00
Sidekick 2	£ 55.00
Top Desk 2.3	£ 32.00
Suitcase	£ 38.00

MUSIC & SOUND

Master Tracks Pro	£275.00
Studio Session	£ 65.00

DISKETTES

	10's	100's	
Sony/Maxell in boxes of 10	£17.50	£150	
	50's	100's	500's
Sony bulk packed	£70	£130	£550

If you are about to purchase Macintosh products and know what you want, three things are important: to purchase at the very best price; to get delivery right away, and to enjoy ongoing technical support. Camelot offers all of this. Call us before 2.30 pm and, if the product is in stock, we guarantee delivery the following day by Post Office Datapost or your money back, and full technical support.

All prices exclude VAT and are correct at time of printing. Add £20.00 per order for guaranteed next day delivery by Datapost or £2.50 per unit for delivery by insured parcel post. Payment may be by Visa/Mastercard, cheque or approved corporate account. International orders are welcome and exclude VAT. Add £4.00 per unit for postage and insurance.



CAMELOT COMPUTING

Suite 100, Oxford House
2 Cheapside, Reading RG1 7AA
Tel: 0734 393916

Apple In Education

News of Apple's latest initiative in the field of education.

Apple Computer UK have invested over £250,000 in a unique joint initiative with Local Education Authorities (LEAs) to set up an independent nationwide network of IT resource centres.

Fully equipped with Apple hardware, nineteen Apple Regional Information Centres (ARICs), will be in operation by mid-June in Scotland, Northern Ireland, England and Wales.

The ARICs will supplement and extend LEAs existing resources to provide teachers and pupils with industry standard equipment and a resource centre for curriculum software development.

The first ARIC based at Cheltenham College, Gloucestershire will open on 24th May in the private sector.

Ian Carter, Head of Information Technology at Cheltenham College explains,

"The ARIC network is an opportunity to create strong links between computer initiatives in both the state and private sector, allowing a cross-fertilisation of ideas by bringing the two sides together.

Apple is bringing fresh ideas to education and we've been waiting for a long time for an exciting initiative of this kind which fills a gap in our current education IT resources."

The first ARIC in the state sector will open at the Essex Institute of Higher Education at Brentwood on 26th May. Steve Heppell, Principal Lecturer in Educational Computing, who will run the Brentwood ARIC, outlines the centre's role.

"As the only ARIC planned specifically in a teacher training environment, Brentwood is a valuable facility for staff and students on the educational computing BEd course, who will be required to

develop courseware as part of their degree. With the new emphasis on Information Technology in schools, teachers who come to us on in-service courses will also benefit tremendously."

Martyn Lowry, schools marketing manager at Apple UK sums up the value and purpose of educational computing when he says,

"We are developing new ideas and new ways of learning that will make a real contribution to the future of education in this country."

Apple Computer has long recognised the need to work closely with education advisers and teachers if new resources are to be provided for the schools sector, in a way that is compatible with existing resources. These factors, coupled with the implications of the new Education Support Grant have led to the unique initiative between Apple Computer and the LEAs.

Apple's investment in the ARIC sites is currently in excess of £250,000. Each site is supplied with the following hardware:- two Apple Macintosh Plus computers; one complete DeskTop Publishing system comprising an additional Macintosh Plus, 20 megabyte hard disk and a LaserWriter IINT, and a Macintosh SE computer with a built-in 20 megabyte hard disk. Also a full software library appropriate to education is provided, with supporting documentation. This includes items such as Microsoft Works; SuperPaint; HyperCard and BBC microcomputer connectivity. All the equipment on site forms a fully integrated workgroup via the AppleTalk local area network.

The ARICs are nationally networked via electronic links to facilitate exchange of information. ■

The MacEurope Magic ToolBox™

MacEurope doesn't bother with less than top quality products. When we started the memory market in the UK, we worked with the best. We believe there are some things you just don't economise on. (Would you fit a second-rate pacemaker, for example?) Intermittent crash systems and corrupt data. The best way to guard against these horrors is to fit Crash Proof memory from the market leader, MacMemory.



When they said "Mac II for £449" I thought they were mad.

But it's true! You can make your Mac SE run like a Mac II.

And it will cost you just £449. Really clever design and advanced manufacturing techniques combine to make a MacMemory accelerator that's very fast and very economic.

There's no compromise on quality and no crashes either. Because Turbo SE uses the same 68000 processor as your Mac, but twice as fast. That's smart. All the memory and all ROM routines run at the full 16MHz. That's smart too.

You'll hear hot air about 68020 accelerators, but the fact is Turbo SE keeps up with the fastest, is much better value, and won't crash on you.

And isn't that what you really care about?

Stocked by MacEurope Dealers. If yours doesn't have stock, or you don't have a dealer, please call us.

Literature and solid advice. From MacEurope. Of course.

MacMemory distributed exclusively by MacEurope. Magic ToolBox trademark registered to MacEurope.



The Granary, Trowse Bridge,
Bracondale, Norwich NR1 2EG, England.
Tel: (0603) 630636
Fax: 0603 630374

SuperGlue™



An indispensable utility for the desktop publisher from Solutions, Inc.

SuperGlue™ provides a simple, easy method for transferring graphics created by Macintosh applications such as Excel, MacProject, MacDraw, MacPaint and Microsoft Chart into document preparation programs like MacWrite, PageMaker, Word, ReadySetGo! and Illustrator. The graphics which you transfer can be as big as a full printed page and are not in any way limited by the screen size.

The output from a Macintosh program may be captured to disk instead of being printed, giving your machine a 'print to and view from disk' capability. The picture gets 'printed to disk' with its QuickDraw commands and is separate from the program that created it. After it is 'printed to disk,' you are able to view it, copy and paste it into any other application, or send it to your printer. It may even be sent to a bulletin board by using a communications program or sent over an office network.

There are three main parts to SuperGlue:- SuperImageSaver, SuperViewer and SuperViewer DA.



Since SuperImageSaver is a special type of print driver, you can only use it to 'print to disk' from inside an application if it is in the system folder you use with application. If you have a hard disk drive attached to your Macintosh, then you need to drag SuperImageSaver into the hard disk system folder in order to use it with your applications.

SuperViewer is an application that can be run from the Macin-

tosh desktop just like any other application.



SuperViewer



SuperViewerDA

SuperViewerDA is a desk accessory which may be installed in your system using the Font/DA Mover and then accessed through the Apple (little apple) menu.

The SuperImageSaver application may be used to save a picture of any page which an application tries to print. The pictures of each page are saved on disk in a file which is called an 'ImageSaved' document. The ImageSaved document can be opened later with SuperViewer or SuperViewer DA.



SuperGlue Sampler

When using any major application such as MacDraw, MacWrite, ReadySetGo!, Excel or Jazz, you just do exactly what you would normally do until the point where you are ready to print. Then, if you have already installed SuperImageSaver in your system folder, you go to Chooser in the Apple menu. Of course, if you are using a very old system file, then you may not have Chooser. In that case the first version of this product, which was called Glue, would be of more use to you, especially if you are using a 128K or 512K Macintosh. Glue does much the same thing as SuperGlue but works in a way more suitable to the earlier machines.

If you do have Chooser in your Apple menu, then select it and when the dialog box appears, click on the SuperImageSaver icon to choose it. Then, when you return to your application, choose 'Page Setup' from the File menu. At this point the SuperImageSaver dialog box should appear so that you can choose your document size, etc. Do click OK, not Cancel.

Then choose Print from the File menu, and follow normal procedures. Then SuperImageSaver will ask you the name of the file it is to save.

The file you save on disk can be of three types. It can be a normal Glue file, a Scrapbook file or a text file. If you save a document as a Scrapbook, each page of the document becomes a page of the Scrapbook. This is very convenient for sending files to someone who does not own SuperGlue.

SuperViewer and SuperViewerDA have the same capabilities. However, SuperViewerDA can be used while you are using another major application like ReadySetGo!, MacDraw or Cricket Draw, so it is an easy way to bring graphics created with another program into one of these applications.

One of the best reasons for using SuperGlue is to facilitate the moving of graphics from one application to another. Although with the many formats for saving graphics that are now available to the Macintosh user, things have become easier when transferring graphics, there are always some applications that refuse to accept each other's files. SuperGlue is invaluable in this situation.

SuperGlue is available from MacLine at the price of £59.00. More information can be obtained from MacLine on 01-642-4242. Apple

The User-Friendly Apple Dealer

(But we ain't no wimps)



Celtip Computers : AppleCentre

Lower Mill Street, Kidderminster, Worcs., DY10 2JG Telephone (0562) 822222

LPA MacPROLOG™ 2.0

Bill Pearce reviews this programming language for the Macintosh

Let me begin with the manuals. There is a 72-page Environment Guide and a 400-page Reference Manual. The text is small but clear. Page layout is carefully planned with sensible spacing and full use of stylistic changes to make the argument of the text perfectly clear. A rather nice touch is the repeat of chapter number and title at the top of each page. The Reference Manual is spiral bound for ease of handling. The list of contents occupies 12 pages, the Index 13 pages. It was a pleasure to read English that said what it meant and meant what it said. There was none of the usual computerspeak - such as 'compatibility' which as everyone knows is the ability of a computer to be compatible. The contractions 'i.e.' and 'e.g.' were correctly used so I wasted no time imagining the opposite of what was actually said. (This is one of my pet hates in computer manuals).

MacPROLOG employs an extension of the industry standard Edinburgh syntax. Version 2 has maintained compatibility with version 1, can interface with C and with Pascal. It can read in a text file which can then be edited as necessary. The manual devotes 23 pages to explaining the C interface and 22 pages to the Pascal interface. Neither manual attempts to teach PROLOG.

The MacPROLOG environment is somewhat unusual for PROLOG (says the Manual) and also unusual for the Macintosh. It offers four types of text window for the code - compiled, interpreted, optimised and data. The Environment Guide explains fully the rules governing the uses of each type of window. When in the programming environment there is

also a Default Output Window where answers to your PROLOG queries and Evaluations appear. The user may define the text font, size and style for each text window.

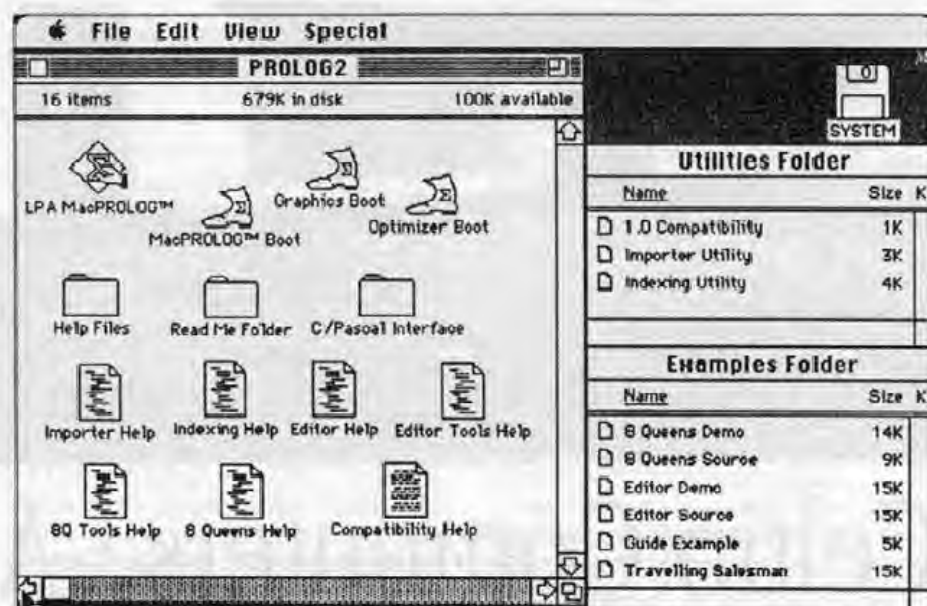
Operators may also be defined - as prefix, infix or postfix, left-associative, right-associative or non-associative, with the requisite precedence weighting. This was perhaps the simplest section of the entire Manual. The debugging, though comprehensive, was not so simple. Full tracing may be on, or spy points may be set on selected relations. Spy messages can be produced at any combination of four ports (your choice). Messages at all four (call / exit / fail / redo) can be confusing (thus says the manual). At this point, and at many other points, I was reminded of my old maths teacher who, after explaining a rather difficult subject, would say "If you understood that, please explain it to me". Not that the text is unclear - far from it. It says

what has to be said. But after a long session with it, you could turn to 'Inside Macintosh' for some light reading.

An appendix lists the default error handling messages, though error handling can be user-defined.

With a fast incremental compiler that recompiles only the windows that have been modified, MacPROLOG claims to be the most advanced PROLOG system available on any micro, also a powerful, general-purpose, high-level Macintosh application language. (There is also an optimising compiler for quick final applications, used for MacPROLOG itself.)

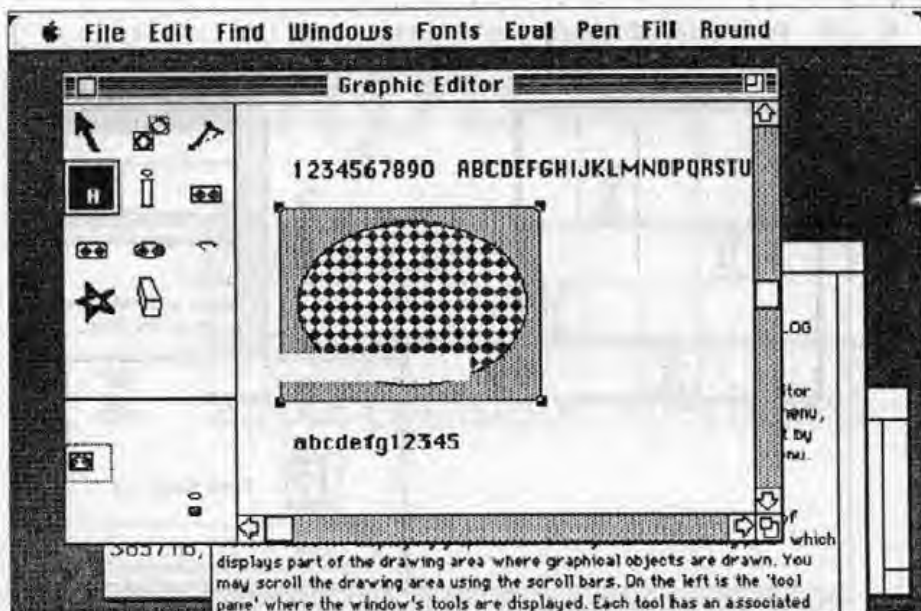
MacPROLOG is certainly high-level and powerful. As for 'general purpose', I am unconvinced. It gives easy access to windows, menus, dialogues, graphics windows, resource files, yet in a somewhat restrictive manner. I could not envisage a Page description program or even a Word Processor being written in it. A language is, of course, a program. The Artificial Intelligence languages are biased towards problem-solving, and the kind of problem they favour is not the problem of how to program a computer! This is partly why they are difficult to use. I have come to perceive an AI language as one where the final program is not very different from the language itself, rather than a selective subset of its commands. A truly general-purpose language gives the most flexible possible access to the



capabilities of a computer but with no particular bias.

That having been said, the high-level access to QuickDraw routines is most impressive. The scrolling graphics window will normally have three panes. To the right of the movable split bar is what it calls the viewing pane (more appropriately the drawing pane) in which Draw type pictures are created. Tools may be defined and used. The top left pane is the tool pane; the bottom left (when on view) is really the view pane, where the whole graphics window is displayed scaled down. There are 60 pages of manual devoted to the Graphic Description language, followed by chapters on Picture Manipulation, Graphics Windows, Advanced Drawing and Tool Building. Pict files may be saved to disk, added as resources to existing files or new files created to store them. There were many complications, and a few minor bugs, in this area. The text handling was particularly untidy. For instance I typed some letters, <CR>, some numbers, then tried again, this time with numbers followed by letters. When Carriage Return is pressed, the cursor disappears and typing appears to have no effect. The typed characters are, in fact, accepted but appear only when a fresh insertion point is selected.

The white area intruding into my little picture was caused by first selecting a text insertion point to the left of the picture. This temporarily clears about 10 spaces, then the picture is re-

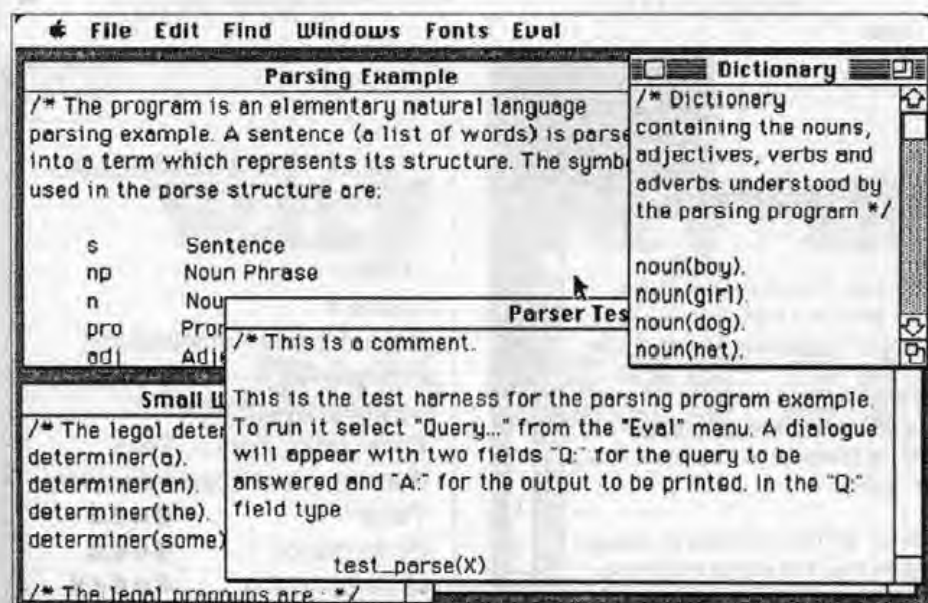


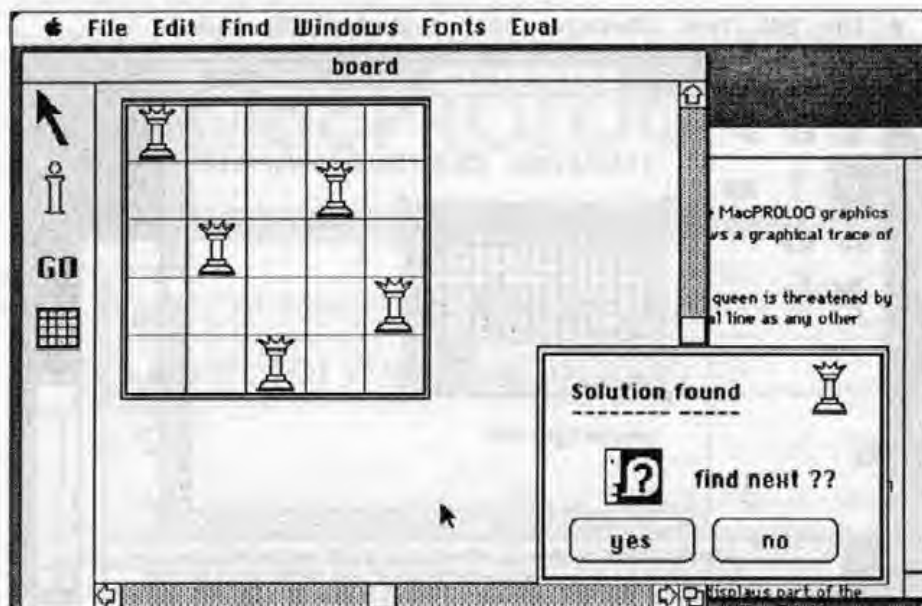
freshed. Typing a character clears some four spaces ahead of the typed character, just like the old 64K ROMS used to - LPA have reintroduced that bug. To continue: I then typed in "1" <BACKSPACE> about twenty times. At each keypress a further space was cleared, although the text actually printed on screen was an accurate copy of what was typed. The routine that prepares the screen for the text was clearly adding one instead of subtracting one. The next screen refresh puts everything to rights. These are minor details that will easily be corrected.

Rubber banding had its problems. It combines two tools in one, so that you have continual point-to-point banding until you discover how to get out of this mode

using the Option key. The Deleting tool deletes a complete picture when you have found a handle to it. I suspect the cursor hot-spot is one pixel up and one to the right of the middle of the + cursor. It was not possible to delete a picture consisting of a single pixel, and the only time I succeeded in selecting a straight line drawing the system crashed.

Printing a graphic screen will give the user cause for much weeping and wailing and gnashing of teeth. The screen itself can be of any size, as defined by the user. The paper you print to is determined by the defaults set in the standard Page Setup dialogue (which is thoughtfully included in the File menu). MacPROLOG clearly needs some more information from the user! The Defaults option in the File menu has two settings which in combination offer four possibilities - Selected Pictures and Scaled to fit page. I shall not bore you with the details of exactly what are the consequences of these settings. I am sure you can imagine the problems. The manual covers every eventuality clearly. Let me continue. The text of a picture will not be scaled unless it is QuickDraw. This is achieved by setting another default in the same Default dialogue box. Clipboard format may be set to MacPROLOG or QuickDraw. Set it to QuickDraw. CUT the text picture (thus placing it in the Clipboard). Now PASTE it. The text can now be scaled on printing. Wait. There is more. How does MacPROLOG know





how many pages the picture is to occupy? (Yes, it can be tiled.) This default is set by a call to set_prop ('DEFAULT', 'PAGES', number). It really is that simple. THEY have thought of everything.

Help files are easily created. They can be edited in MacWrite, not in the MacPROLOG help window, which is display only. Another minor untidiness is that the cursor becomes an i-beam when in the Help Window and an insertion point can be selected. Aha! thought I, I can edit this window. Vain hope. I quickly checked the date - 1st of April is weeks away.

The menus

About LPA MacPROLOG™ ...gives version number and date, bytes free and definable kilobytes of evaluation space.

The File menu offers Load...

Save..., Page setup..., Print..., Help..., Defaults..., Reinitialise..., Quit.

The Edit menu is the standard Edit menu with the additions of Select all and Balance. (Balance extends the current selection to include the next outer pair of matching brackets.)

The Find menu offers What to find..., Replace & find next, Find next..., Find selection, Find definition..., Get information..., Call graph. This last option displays a tree diagram in a graphic window representing the structure of a selected relation. Special tools allow the relation to be examined. LPA intend to develop this idea as a means of graphically maintaining, refining or debugging a program.

The Windows menu offers

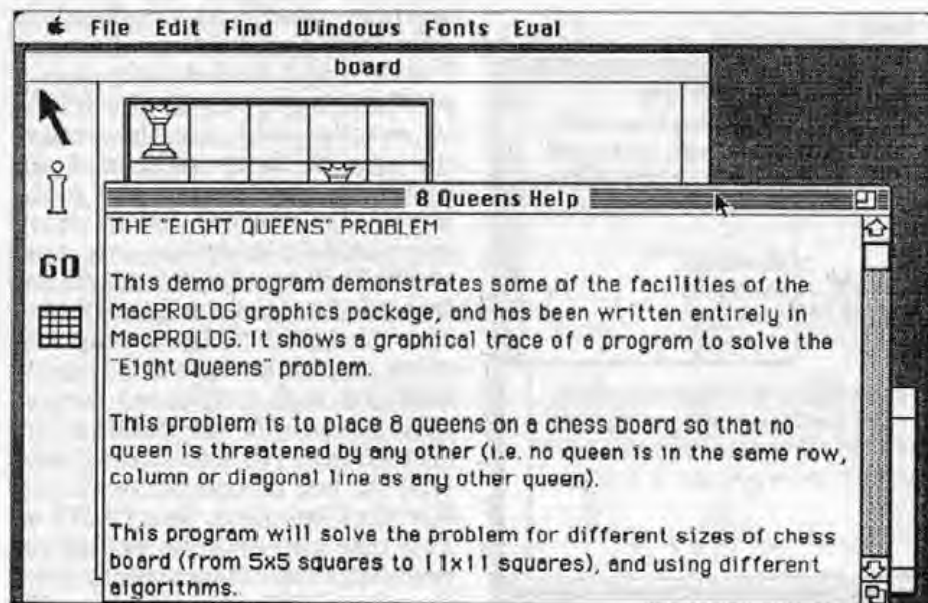
New..., Kill..., Hide, Hide all, Show all, Clean up, Alphabetical, Select window..., Window details..., Clear comments, New operator.

The Fonts menu lists the fonts available followed by the normal style options, followed by point sizes. The guide lists 10, 12, 14, 18, 24. My screen certainly offered me 9 point size. How this list is determined I know not. Certainly all the text screens I examined had 10 point Chicago selected, which is all but illegible. They were easily changed of course.

Finally the Evaluation menu offers Query..., Check program, Set spy points..., Clear all spy points, Tracing, Trace model. Check program recompiles all windows that have changed since the last compilation, compiles all new windows, all according to the window mode. Trace model allows the user to select the ports to be displayed during a trace.

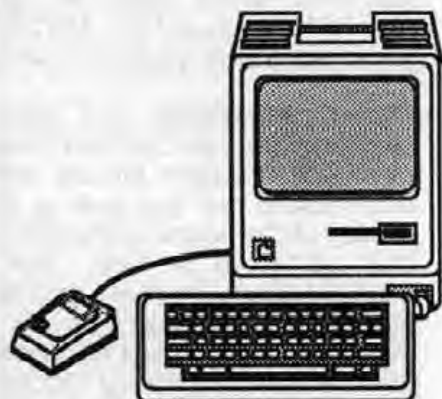
I did note a few more points that are worth investigating but I must draw the line somewhere if I am to finish. There is a warning for instance not to delete or change the File or Apple menus as this is the interface with the Macintosh system. I suspect it will not allow you to do so. Likewise there is a list of reserved Property and Object names that you should not use as they serve a special purpose. You might expect that potentially damaging misuse of reserved terms would be prevented. Maybe it is - I have not checked.

A runtime licence is obtainable for a final application.



info

Product : LPA MacPROLOG
 Publisher : LPA
 Available from :
 LPA Ltd
 Studio 4
 Royal Victoria Patriotic Bldg
 Trinity Road
 London SW18 3SX
 Price (excl. VAT) : £495
 discount: developers/education
 Value :
 Performance :
 Documentation :



Computer Line

apple computer specialists



apple rec £



education £



computer line £

why pay more ?

Tel: 0525 240243

vat Registration No 449 4469 08

Prodigy SE

Mike Davies takes a drive in the fast lane with the Levco Prodigy SE accelerator board.

For some while now I have been plodding along in the middle lane with my Mac SE. Occasionally I have enviously glanced at life in the fast lane with the MacII. Recently when I was offered the chance of 'putting the pedal to the metal' and test driving my Mac with an accelerator board I jumped at the opportunity.

The board I was to try out was the Prodigy SE by Levco marketed in this country by SuperMac Technology with the following specification.

- MC 68020 Processor, 16MHz, true 32-bit memory.
- High speed 1 Mb RAM as standard, with 2 or 4 Mb optional. (The one tested had 4 Mb of RAM)
- 68881 16 MHz floating point math Coprocessor included.
- Recoverable RAM disk.
- Supports BT (Bus Transfer) Expansion board for additional SE card.
- Macintosh SE Reverse Emulation mode.

Packaging

The product is shipped in a stout white cardboard box in which is an even stronger polystyrene package containing the Board, Utility Disk, Users Manual and Installation Manual. I would defy even the GPO to damage this package!

Installation

The manual that comes with the board is titled

"Authorised Dealer Installation Manual" so I can only presume that they expect you to trot along to your friendly dealer to have it installed. I don't know why because it really is a very simple operation, unless it could be that it is almost impossible to lay your hands on one of those nasty little Torx screwdrivers and the dealers appear to be the only owners of such an implement.

The installation in fact took less than 10 minutes from taking out the four screws at the back of the Mac to the time they were reinserted and tightened up. I have never been inside my precious Mac before but in all honesty if you follow the instructions it would take a prize dumkopf to make a mess of it. The manual is superbly laid out, easy to read and many detailed diagrams showing you exactly what to do. The only comment I would make is that when reinstalling the motherboard into the guides of the chassis it was found to be a little tight. The procedure best suited was to put the left side of the motherboard into the left side of the Mac

and then spring open the right side of the chassis about 1 to 2mm with a screwdriver before pushing it home.

After reassembly and before screwing the case back on I suppose the machine should have been tested but one look at the quality of the board convinced me that all would be well. Not a sensible move I suppose, but any way as it happened when I switched on it was not many seconds before the Prodigy welcome sign together with the usual happy Mac but with an amusing difference, it has been slightly modified and now sports two fangs protruding from the smiling mouth. If you do have problems there is a trouble shooting section at the back of the manual.

To complete the installation it is necessary to install a small programme in the System Folder. This creates an Icon in the Control Panel that when clicked allows a number of options, as shown in the screen dump at the bottom of the page.

These options allow you to enable/disable the following features:

68020 Cache

This is a small amount of memory built into the 68020 which allows you to get direct access to the most frequently used instructions.

68851 (Paged Memory Management Unit)

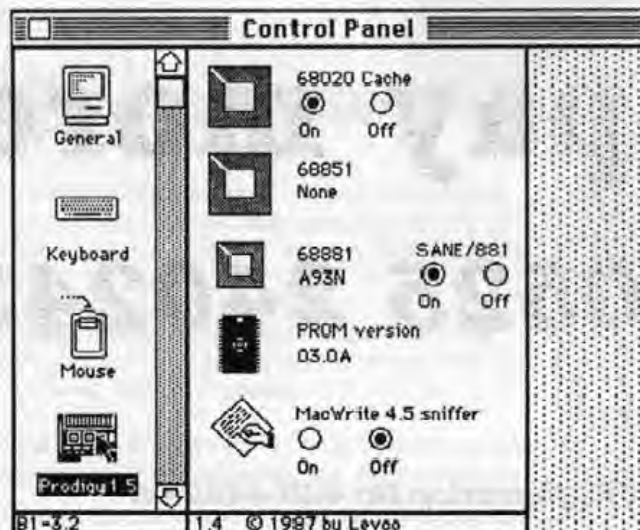
Indicates whether the chip is installed. It is an option which must be used if you plan expanding the Prodigy SE's RAM beyond 4 Mb.

68881 (Floating Point Math Coprocessor)

To my way of thinking this is a must on all accelerator boards if you are heavily committed to spread sheets, three-dimensional modelling, statistics and simulation programmes or any math-intensive software. This can run your software up to 100 times faster. The User Manual quotes this as an optional extra but I understand that has now been changed and it is included as part of the package.

Sane/881

This allows you to select whether or not to divert SANE calls to the



68881 math coprocessor. Most software will run with this option on, however if you do happen to run a programme that does not conform to Apple's programming standards, you will need to turn it off.

PROM version

Not much you can do with this. It merely shows the version number of the PROM (programmable read only memory) installed. The Prodigy PROM contains the software to control the activities between the 68020, 68881, 68851 and the motherboard.

MacWrite 4.5 sniffer

If you use this programme you will need to switch the option on or else the system will crash. If you are running later versions for example 4.6 or 5 you will have no problems and the option can be left off.

The Prodigy RAM Disk

If you want to speed your SE to its fastest possible performance then you should create a RAM disk by using the programme provided. For those who are not familiar with it, a RAM disk is a portion of RAM which the processor reads as though it were a physical disk. Once created you can copy files to it and treat it as any other disk icon on the desktop. You can install your System Folder on it and tell it to install the system each time you start up. This then gives very fast access to all System Folder activities. One nice aspect is if you do have a system crash it is recoverable and you don't lose information. One point of warning however. If the Mac is switched off or a power failure occurs, your information is lost forever, so back up documents to a physical disk regularly to prevent this possible occurrence.

The above potential of the RAM disk sounds great, but with the version I tested it didn't work. I discussed the problem with SuperMac who in turn consulted SuperMac in the States. It would appear that the RAM disk does not work with the new System v4.3 and Finder v6.0. They promised to fly me (not bad service) two new chips from the States which would solve the problem, in fact with an advantage, for not only would the RAM disk now work,

but better still it would be created in the 1Mb of RAM on the motherboard rather than using RAM on the Prodigy board. The 1Mb on the motherboard had up until now been sitting around doing little better than gathering dust as the Prodigy ignores its existence. Good news I thought to myself. But it was not to be as when the chips arrived they were for a 2Mb board and the one on test was 4Mb. So at time of writing the RAM disk and all its speed still alludes me. SuperMac have re-ordered the correct chips from the States and as soon as I have had a chance to evaluate the modified version, I will update this review in a future magazine. I should perhaps make it clear that it is only the RAM disk that doesn't work with the new System and Finder and not the board as a whole, which works brilliantly with Multifinder if you use 2Mb or more of RAM.

Switching to Standard 68000

If you should decide that you want to bypass the Prodigy SE board and run the Mac from its original motherboard, although I can't think of any good reason why you would want to after experiencing the exhilaration of speed, then you require the programmers switch installed on the side of your SE. All that you need do is press and hold the interrupt switch whilst pressing and releasing the reset switch. The Mac will now start up in its original mode.

Optional Features

Should you feel that you want to take your Prodigy SE board to further dizzy heights you can add the following enhancements. The board I tested had 4Mb of RAM but soon you will be able to take this to 8, 16 and 32Mb, as soon as the Paged Memory Management Unit (PMMU) and higher density RAM chips are available. The PMMU is necessary for configurations beyond 4mb.

The Prodigy board uses the Macs 96 pin expansion bus on the motherboard, so the manufacturers rightly thought that owners may still want to add further items such as a large screen monitor or some other hardware device. Because of this they have developed a connector called the

Bus Transition (BT) that reproduces the slot that the Prodigy board used.

Performance

The performance is remarkable in everything from scrolling a document to carrying out mathematical calculations. No matter what you use your Mac for you will be staggered at the increased speed. I have taken my Mac to all the Mac Workshops, some User Groups and also shown it to many other Mac users. I think it a fair comment to say that they were all extremely impressed including one who had recently installed a cheaper board from an alternative source. He thought his was fast until he saw the Prodigy board.

It is always hard to portray test results accurately but the following were carried out first with the Mac running under its own motherboard and the second set of figures with the Prodigy board switched on.

Test Programme/Time in Seconds

	Mac SE	Prodigy
Microsoft File.		
Sort 300 files Z-A	31	10
Re-sort A-Z	7	3
MacWrite Doc.		
Scroll 17 pages.	154	53
MacWrite.		
Spell check		
1211 wds.*	23	9
Concepts Atlas.		
Draw World. #	21	7

* This check was carried out after the document had first been checked for spelling errors so as to cut out the possible differences in delay during correcting spellings. In other words the times above were for checking the spelling of 1211 correctly spelt words. It was done primarily to show the speed of search rather than correction which could be misleading.

As I did not have a large enough spread sheet to hand to show the speed of the math coprocessor I chose the next best thing. A programme that is maths intensive requiring numerous calculations as it plots the various co-ordinates.

Apple were kind enough to lend me a MacII for the Workshops I have been organising. I therefore

had time to compare the Prodigy Mac with the MacII. It was noticeably faster with an increase in processing speed of around 10%. This figure is in fact also claimed in the SuperMac technical bulletin. They also claim that benchmarks performed by Macworld magazine show that the Prodigy runs twice as fast as the VAX 11/780 mini-computer costing more than \$200,000. Naturally I couldn't confirm this!

Compatibility

As mentioned above, MacWrite 4.5 does not run with this board unless you enable the Sniffer located in the chooser. Apart from that I could not find a programme that would not run, although there must be one somewhere. I use all the usuals, MacWrite, Paint, Draw, Microsoft File, Plan, Chart, PageMaker, SuperPaint, HyperCard and many more. Also a host of DA's too numerous to list. For those of you who are keen aviators and use Microsoft Flight Simulator, the board produces a programme that instead of replenishing the screen graphics once a second does it far more frequently and provides very smooth animation giving the impression of the closest thing to real flight I have yet seen.

Conclusions

The Prodigy SE boards start at £1400 for the 2 Mb version. Not cheap, but then I certainly would regard this as a Rolls Royce of products. If you can afford it, whether it be for business or home use I can thoroughly recommend this board and feel you will soon wonder how you got on without it. I am dreading the return to my ordinary Mac as life will be extremely slow and boring.

If you do decide to have a look at this product yourself then contact your local Apple dealer or SuperMac on 06286 67617 for your nearest stockist.

Acknowledgements

My thanks to SuperMac and in particular, Peter Robinson, Dick Williams and Steve Manser for their help.

An evening with Bill Gates, Microsoft and the L.A.M.U.G.

by Nigel Strudwick

Towards the end of April I received an invitation from Microsoft to attend the monthly meeting of the Los Angeles Macintosh User Group (LAMUG), at which Bill Gates, the chairman and founder of the company, was due to speak. Normally, these monthly meetings are only for members, but Microsoft were footing the bill for the larger-than-normal venue required. It was not an obviously promotional exercise, although I would say that it achieved this purpose.

Gates spoke for about an hour, and was always interesting and entertaining. He began with the history of his involvement in the microcomputer software business, back in the days when 4K was a massive amount of memory, and one of the reactions to 16K was "What are we going to do with it?". He moved on through the development of MS Basic, to the Apple II, through the IBM PC to the Macintosh. From this point on, I'll try and report more closely on what he said.

He spoke about Microsoft's product philosophy, and the general trends he hopes MS will follow. An important feature is that they hope to keep products for their two main markets (IBM and Apple) broadly in line, so that there will not be hiatuses such as that presently between Word 3.02 (Mac) and 4.0 (IBM). Gates was - not surprising, in view of his audience - very concerned to stress his company's support for the Mac. He believes that the path taken by Apple towards graphic interfaces, menu systems, and user-friendly software to be the right one; this is also fairly evident from the current directions of the PC world. If the figures are to be believed, in the US, Microsoft supply something like 60% of the software bought for the Mac; this is pretty impressive, since at present these sales are above all based on three products - Word, Excel and Works. Gates made oblique reference to the current "look and feel" legal dispute between Microsoft and Apple, but he said that this in no way will influence the otherwise extremely good relationship between the two companies.

Microsoft are very concerned that their future products should be modifiable by the user - the first steps were evident with Word 3 and its custom menus. These ideas will all appear in future MS updates to other software. Gates wants MS to move towards software that is more and more object-orientated, and will permit an even higher degree of user customisation. He reckons that this

will happen within the next five years, and sees Hypercard as a very important step down that road. He also believes that increasing the speed of programs and machines is still a major priority among users.

Everyone's interest became even more concentrated when he moved on to talk about what is coming from Microsoft in the future. Let's deal with them individually.

Excel: This product was the star of the evening, since it was the only one of the upcoming improvements actually to be demonstrated, on a Mac II, with commentary by Gates. The final version number is yet to be decided: they are calling it 1.5 for the present, wanting to reserve 2.0 for another major improvement. The program should be available fairly soon.

The feature which Gates seemed to be most enthusiastic about is the ability to set up customised stand-alone applications, which is to be achieved via extending the ability of macros. I liked the fact that many of the commands now have additional buttons to enable the user to move on to another operation without returning to the menus at the top of the screen. One of the most obvious changes was the introduction of colour, as is happening with most programs now the Mac II is here. Colour number formats will be available - so, e.g., one can set one's negative numbers to red. Charting has been improved, and the number of functions will be much larger. The program has become faster, and a small detail, but one which produced a very positive reaction from the audience, was the changing of the scroll bars to reflect position within the document rather than position within the 16000-odd possible columns. Incidentally, I found it hilarious that the audience applauded new features when announced, rather like at the end of a piece of music!

Word: As one who writes a lot, this was for me the most exciting. Details of the new version 4.0 are not yet finalised, nor is the release date, and Microsoft are clearly not wanting to release a program with the bugs of 3.0. Like Excel, it has acquired colour, but the most dramatic change is to be the ability to edit in what we think of today as page preview mode, true WYSIWYG at last. The other mode of editing ("galley" mode) will be retained as, in many ways, it is easier for straight input. A slide shown by Gates seemed to imply that it would be possible to wrap text round

graphics as well. Its speed will increase, particularly in saves, with the need for the slower full save being reduced. The product is clearly moving towards competing with DTP programs, but one omission (which I found out as a result of questioning) is proper kerning. It amazes me that such a sophisticated program can omit this feature, which is the real thing that differentiates the appearance of text in Pagemaker (e.g.) from that of the present version of Word.

File: Gates and Microsoft are very aware that MS File is presently still more or less as it was when the Mac was introduced in 1984. It is intended that it be developed to produce a full-blown state-of-the-art database, but with no stated schedule.

There were many questions afterwards, varying from the general to the technical. I found the whole evening with Microsoft very interesting and very well-run. I was particularly impressed that Gates was accompanied by most of his major product managers, with whom it was possible to discuss things in more detail.

I must not ignore the hosts of the evening. I don't quite know why, but I've never got round to joining a user group here - put it down to overwork! I was most impressed by the activities of the Los Angeles Macintosh User Group. It seems to be an indication of the different status of Apple here and the UK that there are perhaps as many members of LAMUG as there are of Apple2000. The advantages of such a large user base in a relatively small area are immense; not only do they have an average attendance of 300 for their monthly general meetings, but there are a very high number of SIGs, for every conceivable area of Mac interest. One important section of every general meeting is devoted to member announcements, where one can offer one's services, look for machines etc. They also get some good discounts from local suppliers.

Their monthly magazine was very well-produced but somewhat lacking in content other than personal opinions and bits of gossip. I think we have to thank the Apple2000 editorial team for the quality of our magazine. 🍏

COMTEC COMPUTER REPAIRS

- **FAST TURNAROUND - NORMALLY 2 DAYS**
- **3 MONTH WARRANTY**
- **COMPETITIVE PRICES ON ALL SERVICES**

EXAMPLES

APPLE II + OR //e Power Supply.	£32
APPLE II + OR //e Motherboard.	£32
Apple Interface Card (most makes).	£25
Disk Drive - cleaned & aligned.	£25

Please ring for other repair prices or send equipment for free estimate.

Quantity Discounts available.

Repair prices include P&P and V.A.T.

MACINTOSH UPGRADES

128K to 512K - 128K/512K to MacPlus

MacPlus Extra Memory

1MEG TO 2 MEG

1 MEG TO 4 MEG

RING FOR BEST PRICE

NOW IN STOCK

MacPlus Connectors, Serial & AppleTalk.

Price depends on quantity.

COMTEC

ST GEORGES MILL,

3 ST GEORGES STREET,

MACCLESFIELD, CHESHIRE. SK11 6TG

TEL (0625) 34691

MacCadd -

The Intelligent Software Diagram Editor



logica

MacCadd Version 4 is a powerful tool on the Apple Macintosh for the production of software design diagrams.

- * Quick and easy to use
- * Output suitable for reports and presentations
- * Supports many of the current design methods such as Yourdon and SSADM
- * Supports any user defined diagram type
- * Can be customised for the users own requirements

For more information contact: MacCadd Marketing
Logica UK Ltd
64 Newman Street
London W1A 4SE

Tel +44 1 637 9111

MacWorld Expo 1988

Dave & Irene Flaxman visit Amsterdam for the second annual European Expo.

The second annual European MacWorld Expo was held at the Rai Exhibition Centre in Amsterdam on May 9th, 10th, 11th 1988. The event was opened by Prince Bernhard of the Netherlands, after speeches from Mike Spindler (a Senior Vice President of Apple Computer, Inc., - with responsibility for European business operations) and Jan Terwisse (General Manager of Apple Computer B.V.).

The Prince is the President of the World Wide Fund for Nature (or the World Wildlife Fund, as we know it) in the Netherlands - and he accepted a presentation from Apple Computers on behalf of the charity. No doubt, the work of administering WWF will be eased by the use of the Macintosh systems which have been given to them - although there was no indication as to the number of systems to be presented. In order to officially open the Expo., H.R.H. Prince Bernhard "clicked" the mouse of his new Mac SE to display messages on the screen of the giant Macintosh which formed the backdrop on the stage. Having performed his official duties, the Prince was escorted to the exhibition hall, to view the types of product available for use on his new computer.

This was the second year for such an event, and it was interesting to see that it was again hosted by the Dutch (last year's was at Rotterdam). Although the event was not organised by Apple, they viewed it as the third component of an important series - the first was the Information Systems and Technology conference held in London in March and aimed at key information managers and executives; the second was the European University Consortium

meeting held at Hiedelberg University and aimed at the best from the academic world.

The University Consortium, like MacWorld, is an annual event - and it was revealed that next year's will be held in Amsterdam, in conjunction with MacWorld. So, it appears that the Expo will not be moving around the European countries, as originally anticipated, but will return to the Netherlands (for a third year, at least) - obviously, the venue suits the international Macintosh community!

The Expo was noticeably larger than last year's, with about 130 exhibitors in the one large hall, and attracting around 10,000 visitors from as far away as Iceland and Egypt - mainly from the major corporations and educational institutions. The exhibition was well-organised, as one would expect of the Dutch, with 22 seminars taking place during the three days - each seminar lasting 2.5 hours. The quality of the speakers varied a great deal, the topics including HyperCard, software development, connectivity, a series on education, and much more.

The main hall was cool in the main, but (inevitably) there were times when the temperature rose as the place became crowded. It still amazes us, just how much interest there is in the Macintosh - I am sure that no other machine generates so much enthusiasm. This show may not be anywhere near as large as those undertaken in the States, but it still has a special atmosphere.

Apple showcased HyperCard, A/UX, and CD ROM applications, host connectivity software and hardware, as well as the standard business and productivity appli-

cations. A/UX was demonstrated but won't be shipping in Europe until later this month, said Fred Zuijdendorp, Product Development Manager at Apple Computer B.V. (Holland). The product was delayed for two reasons, said Zuijdendorp - because the data encryption algorithm in the A/UX source code was on the restricted list for export from the U.S. and had to be removed, and because the AT & T System V.2.2 licensing agreement for the European A/UX has not been completed.

The exhibitors were not allowed to sell their wares during the expo. This may have deterred some from coming - we saw names in the catalogue which were not in evidence at the Expo, presumably they had decided that it was not worth the costs involved. However, the following is a table of the number of exhibitors from various parts of the world, and it serves to demonstrate just how much interest there is in the Show:-

- Belgium:	10
- Canada:	1
- France:	8
- Holland:	78
- Italy:	4
- Luxembourg:	1
- Norway:	1
- Spain:	1
- Switzerland:	2
- United Kingdom:	11
- United States:	19
- West Germany:	5
- International:	2

Several products were introduced or demonstrated for the first time in Europe during the three-day event. Letraset showed pre-beta versions of the Letraset Electronic Type Library and a new program for manipulating their typefaces, LetraStudio, which was developed in Europe. This seemed to us to be one of the most exciting of the new products, allowing the graphic designer to



create special effects using display type (as opposed to text). The program will come complete with a selection of fonts, and is expected to be ready for shipment in the third quarter of 1988. The typefaces are packaged complete with alternative characters, ligatures and flourishes as specified by the original designer.

CE Software's QuickMail was impressive - this was the product which was dubbed "Project X" at San Francisco in January, as they ran a contest to find a suitable name. Radius, Inc. unveiled the Radius Colour Display, a 19-inch monitor with 1152 by 882 pixel resolution, but availability is not yet certain.

The shipping versions of Ashton-Tate's FullWrite Professional and WordPerfect Corp.'s WordPerfect debuted along with Cricket Software's Cricket Presents and Microsoft's new version of PowerPoint. Claris announced several distribution agreements and the availability of localized versions of its software.

One of the main purposes of attending such Expos is for end-users to meet the developers and see just what is available. However, the developers have, perhaps, an even greater need to meet potential distributors - it must be extremely difficult to market a product, particularly when the market is physically far removed from the developer's homebase.

The UK contingent were in evidence, but spread around the hall - some admitted that they had only decided to attend at a very late stage, so were not as well-represented as they might have been. MacEurope had the most impressive stand of the UK companies, with "stacks" of their promac hard disks and drives, memory expansion, etc. - but they were also showing the JustText/Lithographer software for the first time in Europe. We were impressed by this when we saw it in San Francisco - the first application was the production of an Iron Man comic book in full colour, with the software producing the colour separations to go direct to the printer. They were well supported by the President of MacMemory, who had traveled over from The States, and by their European colleagues. We'd like to

thank Stefan and Colette from MacEurope - they allowed us to use their stand as a store for all our paperwork (which saved carrying them around), and we really appreciated the odd can of lager!

MacLine and Computers Unlimited had smaller stands, and both admitted that they were late entrants for the Expo. MacLine were distributing their mail-order catalogues, and they were showing their new EPSF art disks (very impressive!). Computers Unlimited were showing that they finally have FullWrite disks, although it still isn't quite ready to ship! LPA were showing MacProlog, and were supported by their European distributors. The comment from the UK contingent was that it did help to have representatives from the European countries on the stands - it seems that our colleagues from the Common Market still prefer to speak to someone from their own countries.

Several European developers were in evidence, including one area which was devoted to a Belgian contingent - S.A. Apple Computer B.V. (the Belgian subsidiary of Apple Computer) organised the stand, to show the products of a number of Belgian third-party developers. Others included the Jonathan CAD software and MacArchitron - both of which were impressive.

Inevitably, HyperCard played an important rôle, with Club Benelux manning the "Hall of Stacks" - 125 Mbyte of HyperCard stacks, which you could copy onto disks purchased for the purpose. There had been a contest organised by PC Magazine,

for the development of a HyperCard stack, and the prizes were presented during the Expo.

One major issue among vendors and some attendees at the exhibition was the high cost of the Macintosh hardware and software outside the U.S. - a subject which we keep labouring, but our labours seem to have little effect. Hopefully, the message will get through, some day!

The European MacWorld Expo comes at a time when Apple is increasing its investment in the European market. On June 1, Apple Europe will become a more autonomous entity as part of the global restructuring of Apple Computer that was announced in April, and a separate Research and Development Unit in Europe is seen as strengthening Apple's commitment to their European market. During his opening speech, Mike Spindler said that Apple Europe would see more local sourcing of materials to show its commitment to the region, and set up a strategic investment branch to assist in European technologies.

The European Expo may not be as lavish, or as large, as its U.S. counterparts, but it is certainly worth a visit. When you consider that this is only the second year for such an event, you have to be



impressed by the way it has grown and by the fact that it is so well-organised. Thanks to Maggie Steinberger and her assistants for looking after us all so well, and to the Dutch people for their wonderful hospitality. 🍏

LetraStudio™ Type with Adobe Illustrator 88™ drawing.

The Mac at the NAMM Show

Craig O'Donnell reports on Apple's booth at this prestigious U.S. event

Long before there was a Macintosh, a MIDI music interface, or even an Apple Computer, there was the NAMM Show. The National Association of Music Merchants (NAMM) holds two huge expositions each year - a Winter Show in Anaheim, California; and a summer show - usually in Chicago, Illinois.

For three days, attendees from the world over wander through hundreds of booths stuffed with musical instruments and accessories. Europe's equivalent is the Frankfurt Musikmesse held each Spring.

"Software Ghetto" was nestled in a rear corner of the five-hall exhibition complex, and yes, the apple booth was jam-packed the entire show. Of course, Mac SE's and Macintosh II's are the device of choice for all Mac MIDI music vendors, so there were dozens of Macs on the show-floor. Until this year, however, it was up to third-party developers to carry the flag for Mother Apple.

There's always a subtle competition among companies for the flash tote bag and the neatest enameled badges. In the badge department, honours go to England's James Marshall Company for their pin depicting his famous "double stack" of amplifiers. Apple didn't pass out badges, but an eye catching white promotional poly carry-bag was emblazoned with a Mac Plus and DX7 synth, and the phrase "Now Hear This".

So, Now Hear This: the Apple MIDI Interface has arrived.

This \$99 (US) box is sold through VAR's and dealers - Apple's traditional channels. No surprise here.

Apparently Sculley's crew threw two massive windings, one Thursday at MacWorld and one Saturday at NAMM, to celebrate the product intro. This writer was in the wrong city at both times, so I can't confirm rumours that the product team danced in go-go cages nor that David Bowie appeared to perform an impromptu sax duet with Alan Kay.....

A MIDI interface is a simple circuit akin to a fast, "dumb" modem. Built-in

MIDI interfaces are used to interconnect synths from manufacturers worldwide, and this box will allow all Macs but the 128 to communicate with keyboards. The MIDI data specification and interface standard has single-handedly propelled the synth into first place as the fastest-growing instrument category. Since the interface is based on a global standard, Apple's engineering task was technically a no-brainer. The elegant, small package does come with two MIDI standard cables and a mini-8-to-mini-8 serial cable. It is very competitively priced for the U.S. market.

MIDI-compatible special effects, reverbs, and so on, are not far behind keyboards in popularity. Just hang out at Argent's for the full tour.

Since a MIDI box isn't much to crow about, Apple's stark-white booth hosted the cream of the third-parties crop:

Activision (with a IIGS), Passport Design, Digidesign, Southworth Music Systems, Resonate, Integrated Media Systems, and Australian newcomers Graphic Notes.

Digidesign and Southworth showed their Macintosh II NuBus Digital Signal Processing (DSP) cards - neither is shipping until later in 1988. Imagine a Compact Disc recorder and processing facility in your Mac II. The Macintosh II is altogether "megakill" in the studio, since most music software will run fine on the 512, Plus or SE. Digidesign also had their well-known Mac sound editors.

Passport demonstrated the very fine "MasterTracks Pro 2.0" sequencer, which may be the premier Mac music package. A semi-professional version, "MasterTracks Junior", has been announced for the Mac (and Atari). Ably demonstrated by Macmaniac/international MIDI star Paul Lehman, MasterTracks Pro kept people pinned to its Mac throughout.

Resonate offers a fine interactive ear-training program, Listen 2.0

Two new products were especially exciting.

Show-goers crowded into Graphic

Notes' square metre to see its desktop score publisher (rather dully named, "Music Publisher"). A unique ADB input device similar to a numerical keypad sets this \$500 application well apart. Support for MIDI data importation is promised (so players can load a computerised piece into the Mac and clean up the score for printing).

Fortunately, Integrated Media's shelf was located round the corner. Their Dyaxis hard-disk digital recorder/editor portends digital music mastering, sound sampling, and editing costing under \$10,000. The software uses a "multi-track tape deck" metaphor; an infinite number of tracks are theoretically possible. The complete system consists of a sound digitizer module, a hard disk subsystem, software, and an accelerated SE.

Another notable product was shown over the midst of Software Ghetto. Alchemy, from Blank Software, will permit working with files from the many sampler keyboards on the market without regard to machine-specific file formats. A welcome development.

Publicly, software vendors applauded Apple's born-again interest in the music marketplace. Veteran NAMM attendees seemed pleased, but expressed fear that Apple might colonize the market, dictating to developers. Some felt it was a token gesture (will Apple be in Atlanta for June NAMM?).

Privately, I noted that Apple had sent mostly software engineers in the booth crew. It's not clear Apple really comprehends music's creative side.

Why the fuss from Apple?

Some 350,000 MIDI synthesizers are sold each year! Apple comprehends music's financial side, especially in the educational marketplace. Beginning last June, Atari has placed the economical 520/1040 ST and new Mega 2/4 computers at major music retailers. More and more Mac programs get ported to the Atari (which was designed with MIDI onboard), and to date many musicians cling to the Commodore 64 and Apple II; who will sell them their music workstations? Atari has a significant price advantage, and sells on the rockers' home turf too.

Remember that music is an integral part of radio, the cinema, the telly, the CD boom, and even . . . DESKTOP PRESENTATIONS. There are a lot of machines to be sold. How can Apple leave a booming market open to clones, and Atari?

Time will tell, but from the back room on a snowy, cold Chicago night, it's still nice to see Apple make a commitment, however symbolic, to another creative field.

APPLE AUCTION

**1000 LOTS OF NEW AND QUALITY
SECOND-USER MACINTOSH AND APPLE //
EQUIPMENT ETC. INCLUDING:-**

**6 MACINTOSH PLUS COMPUTERS
7 MACINTOSH SE COMPUTERS
3 MACINTOSH II COMPUTERS
3 LASERWRITER PLUS PRINTERS
7 IMAGEWRITER II PRINTERS
2 IMAGEWRITER LQ PRINTERS
2 SUPERMAC 19" COLOUR MONITORS FOR MAC II
HARD DISKS FOR MAC, APPLE][+ OR //e
25 APPLE //e AND][+ COMPUTERS
8 APPLE /// COMPUTERS
10 APPLE][AND APPLE /// MONITORS
25 APPLE][DISK DRIVES
4 PLOTTERS
2 GRAPHIC TABLETS
INTERFACE & UPGRADE CARDS
NEW SEALED SOFTWARE**

SUNDAY 3RD JULY

**VENUE IN M25 AREA TO BE ANNOUNCED
VIEWING FROM 09.00 - AUCTION STARTS 12.00**

FOR A DETAILED CATALOGUE CONTACT:-

**MICROCOMPUTER AUCTIONS
39 BRIGHTON ROAD, SOUTH CROYDON, SURREY CR2 9EB
TEL: 01-541 5915 (PBX)**

**MICROCOMPUTER AUCTIONS
&
JOHN RUSSELL & CO
COMPUTER BROKERS AND AUCTIONEERS**

APPLESHARE PC

Irene Flaxman looks at this option for networking your IBM PC's with Apple Macintoshes

What is AppleShare PC? A program which allows your IBM PC to interface with other computers, printers and other devices via an AppleTalk network.

The system requires:

- An IBM PC family computer (PC, XT, AT, PS/2 model 25 or 30) or 100% compatible computer with at least 384k of RAM.
- An AppleTalk PC card.
- An appropriate DB-9 AppleTalk connector.
- DOS v3.1 or later.
- The AppleShare PC Installer disk.
- At least one floppy disk drive. (N.B. Two floppy disk drives, or one hard disk and one floppy disk drive are needed for installation).
- Access to an AppleTalk network with one or more AppleShare file servers, v1.1 or later.

We tried out the system using an IBM PS/2 model 30 with one hard disk and one floppy disk. Installing the AppleTalk PC card was easy enough - the system used for these machines is quite neat.

We installed AppleShare on our Mac Plus, which meant that that machine could then only be used as a dedicated file server. We found the setting-up process somewhat cumbersome, but then the system worked well. It still seems odd that the AppleShare system requires the complete dedication of the host computer.

The next stage was to install the AppleShare PC software onto the IBM's hard disk. This was when we hit the first snag! The system is supplied on a 5.25" floppy disk, but IBM PS/2 model 30 has a 3.5" disk drive (as is the case for all

new IBM's). We checked with Apple - there is no 3.5" version available, so a colleague copied the files onto the smaller size disk. Some of the files didn't appear to copy, which caused some initial concern, but the system finally worked. The installation is a simple process - just insert the floppy disk into drive A; at the DOS prompt, type "A:Install"; follow the instructions printed on-screen by the installer program (e.g. you need to advise which drive the software should be installed on!)

AppleShare PC includes the AppleTalk PC Desk Accessory program (DA), which allows you to:

- Find file servers on the AppleTalk network.
- Log-on to the network.
- Attach server volumes to the DOS drive letters.
- Log-off from the network.
- Review and set access privileges for server directories.
- Perform useful DOS utilities.

To use the Desk Accessory program, you simply type in "DA" at the DOS prompt. It seems a retrograde step, to revert to typing in DOS commands, but there seems little alternative - and this is an IBM limitation, not one imposed by Apple. Once you have entered the DA program, you are presented with menus which make it relatively easy to set up the system you require (e.g. assign a drive letter to a file server, so that you can access files thereon; or choose a printer for your output). The use of the term "relatively" is because it certainly seems easier than the standard DOS commands - but it is not as easy to use as the standard Macintosh interface which we know so well. There

is an on-line "Help" facility, in case you need assistance (and it frequently was needed!), and the system uses the standard IBM function keys to take you through the various phases. Actually selecting file servers and printers was straightforward enough - but we tended to get confused when trying to move between menus or to exit from the DA program.

AppleShare networks work in much the same way as any other, but access seems to be quicker than others we have tried. It was irritating, though, that we had to "shut down" the network in order to make administration-type changes, such as registering a new user or a new group of users. Admittedly, some functions must require the network administrator to shut down the network - but adding new names surely could not affect current users, so we could not see the need there. However, it does seem to be a constraint of the system employed by AppleShare.

Having established a network, folders (or volumes) are created on the "host" hard disk, and access rules are put in place for each volume. It is possible to allow users to share access to some volumes, whilst protecting others from unauthorised entry by making them "private". The levels of access allowed can also be specified - you can allow users to see folders, to see files contained within the folders, or to make changes to the files. These volumes may be created by the Administrator (but only whilst the network is shut down), or by users accessing the host from any of the remote computers.

Having set up the access privileges, the type of machine trying to gain access is transparent to the system - it matters not whether a file is to be read using an IBM PC or a Macintosh - the user identifies himself (or herself!), and - provided that they can type in the correct password - they will be allowed access to the data for which they have access privileges.

Having used the DA program to select a file server, and having assigned a drive letter to it, simply typing in the DOS command Dir will show a directory listing on screen. (Unfortunately, the familiar Macintosh icons are not avail-



able, but that's life!). The most obvious cause for comment then becomes apparent! We are so used to the freedom of the Macintosh naming convention - where we can use up to 31 characters, including special characters and spaces. The IBM is not so accommodating, and you really must remember this when you are naming files as you save them to a volume on the host hard disk. IBM will allow eight characters, followed by a period ".", followed by a three-character file type (e.g. WK1 for a spreadsheet), and special characters or spaces are simply not allowed.

We found some really strange conversion rules were applied by the DOS system, before we started taking more care of how we named our files. We tried creating a spreadsheet, using Excel on the Macintosh, then opened it using Lotus 123 on the IBM. We found that it did not appear on the Lotus 123 menu, but the file could be opened by typing in the drive letter and file name - it was important, though, that the spreadsheet was saved as WKS format, and that the filename contained a maximum of eight characters followed by ".WK1". All other combinations were ineffective, as we could not find the file. Similarly, it was possible to create a spreadsheet file using Lotus 123, save it to the host hard disk, then open it with Excel - this time, there were no problems with naming conventions, of course!

To print a file, it is necessary to assign a printer to one of the output ports, and to identify the printer port to the program. We succeeded in printing to both the LaserWriter and an AppleTalk ImageWriter from Lotus 123. The ImageWriter caused us a few

problems, as we did not have the appropriate driver for the Lotus software, but we identified the printer as an Epson (both in the DA program and in Lotus 123, of course!), and it then worked quite happily with the Epson driver. Output to the LaserWriter was relatively simple, but we did not have access to the number of fonts usually available for use with the LaserWriter - and these were missed!

The program which we were allowed to test was a Beta-test version, so it may be modified before release. The draft manual was sparse in the information provided, and assumed a fair degree of knowledge as regards the use of IBM PC's. It included a disclaimer notice, identifying certain software which is compatible with AppleShare PC and advising of any special conditions which might need to be fulfilled - e.g. it may be necessary to set up a private directory. The list is not extensive, as Apple have not tested all available products. Amongst those listed as compatible were:-

- Lotus 123 v1a
- 3COM 3+
- Microsoft DOS v3.x
- Ashton Tate dBASE III Plus v1.0
- AST Research DesqView
- Ashton Tate FrameWork II v1.1
- Think Technologies InBox PC v1.0
- Ashton Tate Multimate Advantage II v1.0
- Microsoft Multiplan
- Aldus PageMaker v1.0
- Ansa Paradox (single user) v1.1
- Rossoft ProKey v4.0r10
- MicroRim R:Base System V v1.0

- Borland International SideKick v1.56a
- Hayes SmartCom II v2.0
- Lotus Symphony v1.2
- Centram TOPs 3/18/87
- IBM TopView
- Microsoft Windows v1.0
- Microsoft Word v3.0
- SSI WordPerfect

We, too, were unable to check out many programs with the system. We did try to use the Display Write Assistant word processor, but to no avail - in fact, not only did it not recognise the file server or printers, but it also "de-installed" AppleShare PC, so that we were forced to re-run the Installer program.

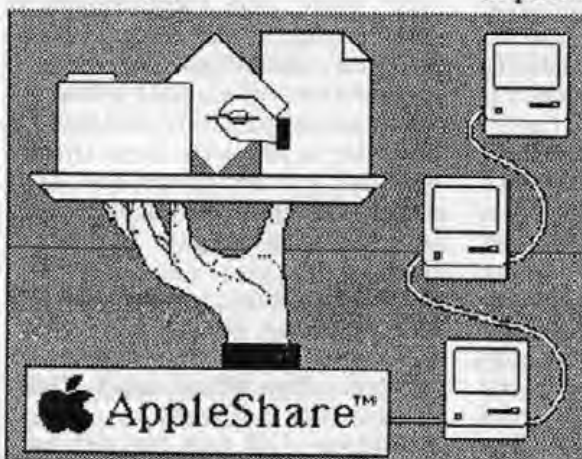
When we tried to read a fairly small PageMaker file (50k - 60k) into the IBM via the AppleTalk PC system, the attempt failed with the message "insufficient memory". This puzzled us, and we still have not found an explanation as to why the file could not be read. We successfully converted the file to IBM format, using the DaynaFile, and then read it into the IBM directly!

On the whole, though, the system worked. Our main criticisms are of the IBM system restrictions, which we found frustrating after the freedom of the Macintosh interface. However, AppleShare PC does provide a viable solution for the large corporate users, who wish to link their IBM's and Macintoshes via a single network. As stated, the version we tested was a Beta version, but it seemed stable enough - we were not able to "crash" it, anyway!

It was surprising that nobody at Apple seemed to know much about the product - perhaps they see it as too specialised a market? In particular, it seems very short-

sighted that there is no intention of providing the software on a 3.5" disk - these are becoming the standard, and all IBM software is currently shipped with two sets of disks 3.5" & 5.25".

Our thanks go to Apple Computers (UK) Ltd, who loaned us the software (and some of the hardware) necessary for us to test the system.



Network News

The latest news, tips and gossip
from the networks.

From Usenet

From: dumesny@batcomputer.
tn.cornell.edu (Alain Dumesny)
Subject: Re: **Apple Challenges
HP New Wave, MS-Windows,
Potentially OS/2 PM**

rogue@well.UUCP (L. Brett Glass)
writes: >Apple has entered a legal
challenge which, if successful,
could have dire effects on future
development of user interfaces for
personal computers. >..... If
there is sufficient interest, I am
also willing to help coordinate the
development of an amicus curiae
brief opposing Apple's claims. >....
NO !!

I totally agree with Apple's claims.
I don't think that companies like
Microsoft or HP, or just anyone,
has the right to copy the interface
Apple as created (or at least ex-
panded from an original design at
Xerox).

Apple has spent several years
(four I think) and many, many
man hours to produce what is
now recognized as a revolutionary
way of working with computers. I
don't know if you remember, but
when Apple introduced the Mac
more than 4 years ago (January of
84), many PC users (as in IBM
PC's) laughed at the interface
saying that Mac will never be a
serious "business machine" with
this icon based interface (remem-
ber that magazine cover page with
Mac saying "hello" and an IBM PC
saying "get lost" ?).

Now, companies like IBM realized
the potential of such an interface
(enormous cut in training cost
and added productivity) and want
to copy the look and feel of the
Mac's interface !!

I DISAGREE.

I hope that Apple will win, and
that Microsoft will have to stop
Window (or give it a total different
interface), because to me Window

is a violation to Apple rights (did
you look at the windows, scroll
bars, "elevators"..., there is only a
few differences, like the way you
select an item from a menu (you
don't press the mouse button
down while dragging, but rather
click again, which I must admit is
better)).

I don't think that people should be
allowed to copy Apple's work (with
a few changes to make it look a
little different), because Apple
spent so much money into devel-
oping this interface (and took
risks because you never knew if
the Mac was going to be a success
or not (although I always thought
so)), while others just wait and see
if it succeed, in which case they
implement it on their own com-
puters.

When I said that Window looks
like the Mac interface I mean the
"looks and feel", not the inside of
the program, which may have
many added/other/different fea-
tures.

The future is funny. A few years
ago, who thought that Microsoft/
IBM would ever try to implement
an interface similar to the Mac's
interface. How could a computer
with a smiling face at startup ever
do business ? right ! (I am glad
that more and more business
people stopped thinking this way)
As you probably would have
guessed I am glad that I will never
have to work for IBM, even though
I receive a job offer from them !
(but Apple is another story :-)

Alain— Cornell University Elec-
trical Engineering / Computer
Science

Usual disclaimer those are my
own opinions, etc

From Charlie C. Kim

Subject: **Re: What hard disks
does A/UX support?**

A Rodime 140 and theoretically

the entire Rodime line should
work just fine as an A/UX only
disk. The A/UX generic SCSI
driver seems to be very good. (The
Rodime 140 is slightly faster
than the std. Apple 80MB inter-
nal). Unfortunately, the Rodime
drivers do not support the Macin-
tosh II partition manager as de-
fined in Inside Macintosh Vol. V,
thus you cannot take a partition
for use under MacOS - don't even
try! Actually, the Apple MacOS
driver almost works— reads seem
reliable, but writing is not :-). This
is probably true of most MacOS
disk drivers today (of course, it's
possible that with some of the
disks, the Apple MacOS SCSI disk
driver would work, but not on the
Rodime at least).

Never run a SCSI driver that does
not understand the IM Vol V no-
tion of partitions on a drive that is
partitioned. (You really have to
work at this though — about the
only way to get it on the disk is
using dd :-). It will not work
correctly. Another warning, there
is another partition manager de-
fined in Inside Macintosh Volume
IV that is quite different and in-
compatible with the one defined
for Macintosh II's and used by A/
UX. (The sample SCSI driver from
Apple deals with IM.IV partitions).
The easiest way to setup a Rodime
140, is to just dd over the data
from a distribution 80MB and
munge with the partition tables to
get the extra 60 meg in. To play
things really safe, either kill the
MacOS partition or lock it with
dp— leaving it around unlocked
can cause problems.

My advice is to keep the changes
as simple as possible. I simply
turned off writes on the MacOS
partition (with a copy of sash and
utilities) and reused the "Extra"
partition at DPM 8 as a "user UFS
partition" containing the remain-
der of the space (physical:
125218@156368). However, this
does have one minor problem.
Disk partitions/slices under A/
UX (e.g. /dev/dsk/c0d0s0, s1,
s2) are not "directly" mapped to
the partitions under the parti-
tion manager. You use "pname" to
define mappings — so be careful
there. You might find it simpler in
the long run to simply shuffle
around the file systems so that
you can have one big A/UX parti-
tion— however, the problem here
is knowing where to put things.

The eschatology file system are presumably placed on the disk in different physical locations to minimize the effects of any hardware disk damage (of course, this didn't help me any — my disk just went under totally).

If you don't think you want to copy the entire disk and just want to get things to the point where you can munge things around, the physical disk layout is something like: <boot block> <partition blocks> [1 per partition] <MAC OS driver> <1st extra/Free partition>... just dd from 0 to the physical partition start of the first partition following the MacOS driver. I am pretty sure the dp size blocks are 512byte units, so you could setup for running dp on a new disk by issuing the command "dd if=/dev/dsk/cYd0s31 of=/dev/dsk/cYd0s31 count=96" where X is the SCSI id of the original and Y of the destination. This will copy the MacOS driver too. This is just paranoia because I'm not sure what MacOS will do if it sees a disk drive without a 'driver' on it.

In article <3920@sphinx.uchicago.edu> sas1@sphinx.uchicago.edu.UUCP (Stuart Schmukler) writes: >In principle the 'dp' utility can deal with any type of hard drive. >The problems are:

Configuring and loading the Eschatology parts of A/UX
Loading the Eschatology parts of A/UX

Configuring the Mac partition
Loading the Mac partition
>and making sure that the MacOS respects the partition (say during Erase Disk) >SaS >

>PS: Dealing with 'dp' is arcane. If I was clearer on the subject I'd >write it up. We found that you had to check the System Admin man pages >and the A/UX device drivers manual.

The easiest way to deal with these problems (as noted above) is to duplicate the partitions from the distribution disk and play with them. The only problem left is ensuring that MacOS respects the partitions: it should if the MacOS driver you installed respects the Macintosh II disk partition manager. If it does not, then it will probably smash the disk anyway. I think the idea was to have the partitions generated from MacOS by a vendor specific utility that

reserves space for <n> (user specified) partitions, creates any MacOS partitions you wanted, and installs the driver. dp could then be used to install the A/UX partitions. Of course, the problem is finding disk drivers that support the Mac II partition manager. Remember, it is important to note "dp" can't be expected to initialize the disk correctly for MacOS because a vendor specific driver must be installed if you are to use it under MacOS.

Suggestion for the next release of A/UX — either make it easier to build the default set of partitions (including MacOS partitions) via dp or leave more slots in the standard distribution! There's only two free partitions—for really big drives, this really isn't enough. Also, make the slice to partition mapping go in order or have some more rigid mapping. This would make me feel much safer.

Charlie C. Kim

User Services Columbia University

From: csaron@garnet.berkeley.edu (Aron Roberts)

Subject: **HyperCard 1.1 and locked disks or volumes**

As has been noted previously in this newsgroup, HyperCard 1.1 can now run off of, and use stacks which are located on, a *locked* file, disk, or network volume. This has particular utility in settings with one or more file servers, for it now allows many users to simultaneously share stacks which are stored on a read-only volume on the file server, without first having to copy these stacks to their own local disk storage. It also allows the current version of HyperCard to immediately begin making use of stacks located on CD-ROM, which is apparently the primary purpose of this added functionality in version 1.1.

** The method described below is a temporary hack which will be ** removed in subsequent versions of HyperCard. Use at your own risk.

The command "debug writeoff" allows HyperCard to use stacks on locked volumes by turning off the automatic saving feature of the program. Any changes made to stacks will be made only in memory, and these changes will not be present when the stack is exited and reentered. One can still use the "Save a Copy ..." com-

mand from HyperCard's file menu, but this command will only create a duplicate stack which mirrors the initial state of the stack one is working in; it will not save any changes which have been made. The command "debug writeon" turns on automatic saving of changes, and thus restores HyperCard's default state in this regard. Both of these "debug" commands can be typed into the message box or incorporated into scripts in the same manner as other HyperTalk commands.

David Leffler of Apple has confirmed in a recent communication that "The Home stack must be on an unlocked volume ...". As a result, an appropriate place for the "debug writeoff" command is in the "on startup" handler in the Home stack. If a Home stack which has been modified in this way is launched directly from an unlocked disk or volume, the HyperCard application itself and all other stacks which are to be accessed by HyperCard can be located on locked disks or volumes. Stacks can be accessed in any privileges mode otherwise permitted, from Browsing through Scripting, since changes to stacks on locked volumes are not permanent.

According to Apple's HyperCard product manager Mike Holm, quoted by Rory J. O'Connor in the article "CD-ROM eludes HyperCard" (Macintosh Today, 22 March 1988, p. 7), the "debug writeoff" command in HyperCard 1.1 is "temporary in the extreme, a hack in the true sense of the word. It will be removed when the new version is released."

The article states that Apple has been working since December 1987 on a version of HyperCard which will officially support locked volumes, and particularly Apple's forthcoming CD-ROM product, now scheduled to ship in May 1988. A prototype of this new version of HyperCard is expected to be sent to developers in coming weeks.

According to Holm, "The next version will read a disk that's on CD-ROM, or a locked disk or a file that's locked under the Finder. It'll tell you you can't make changes, and the plan right now is to avoid a lot of alerts, bells and whistles."

Aron Roberts, Tolman Microcomputer Facility, 1535 Tolman Hall, University of California, Berkeley, CA 94720 (415) 642-2251

From: eacj@batcomputer.tn.cornell.edu (Julian Vrieslander)
Subject: **MacProto - a Nubus prototyping card for the Mac II**
There have been several inquiries in this group for info on Nubus prototyping boards for the Mac II. I recently received some literature on a new product in that category. It is called MacProto, and it is made by:

Adex Corporation 105 Albright Way Los Gatos, CA 95030 (408) 866-2077

Unlike the proto board announced by Vector, this one comes with Nubus interfacing logic and a "Slot Declaration ROM." The logic is set up for Nubus slave operation. There are two 32-bit latching registers: one for address and one for data. The board allows 8, 16 or 32-bit wide data transfers. There is also an addressable 8-bit read/write "user" register.

>From the photograph, it looks like the interfacing chips take up about half of the board space. The remainder of the board is the prototyping area, and appears to be drilled for wirewrap sockets (0.1" spacing, plated-through holes).

MacProto comes with a user manual and a disk containing C-source and sample programs showing how to read to and write from the board. Price is \$299.95.
- Julian Vrieslander (607) 255-3594 Neurobiology & Behavior, W250 Mudd Hall, Cornell University, Ithaca NY 14853 UUCP: {cmcl2,decvax,rochester,uw-beaver,ihnp4}@cornell!batcomputer!eacj
ARPA: eacj@tcgould.tn.cornell.edu

From: chuq@plaid.Sun.COM (Chuq Von Rospach)
Subject: **Hypercard magazines & books**

I've decided that HyperCard qualifies for the fastest market niche to saturate in the history of computers.

I counted my eleventh HyperCard book this weekend. I found my second magazine dedicated to Hypercard. All this in about eight months?

On top of this, I know of something like four or five books under development. And every Macin-

tosh magazine seems to be sprouting a HyperCard column. (Except maybe MacTutor. I haven't seen one in MacTutor yet. Good for them....).

If I see one more interview of Danny Goodman, I'm gonna frow up.. No offense to Danny on this. He's a nice person. He's got a best selling book. But he's being interviewed by everyone and their sister as the maven of Hypercard, when all he's done is be the first author of a decent HyperCard book. Why aren't they interviewing Dan Winkler, or Bill Atkinson, and going directly to the source? Danny is accessible, but he isn't the same. Once, twice maybe. But I've seen half a dozen Goodman interviews in half a dozen different places. And they all seem to say the same thing...

Anyway, if you're a Hypercard user, it's definitely buyer beware. Of the books I've seen, I've bought four (I liked three). The rest didn't pass the "Is there anything new or unusual or interesting?" test. Lots of people are covering the same things in very similar ways. Lots of things are going to go out of print. And lots of publishers are going to take baths.

[For the record, the books I recommend to folks interested in HyperCard, in relative order of preference, are:

- o Carol Kaehler's book "HyperCard Power: Techniques and Scripts"

A nice introduction & philosophy of stack design book. neat stuff

- o Danny Goodman's book "The Complete HyperCard Handbook" The definitive reference, to date.
- o Dan Shafer's book "HyperTalk Programming"

Not as strong an introduction as Kaehler's, not as deep a reference as Goodman's. I'm sure I could replace it with one of the other half dozen HyperCard books, but I've looked at this one and I haven't looked at the others enough to replace a safe bet with a better safe bet. These things cost money, and I'm unwilling to make an evaluation of something based on skimming it in a store (beyond, of course, choosing to not buy it). Magazines are even more fun. I ran into HyperLink Magazine, Vol 1 #1 this weekend. It's aim seems to be the MacTutor of HyperCard. It's got Dan Shafer and Carol

Kaehler. It's got possibilities, but it's also quite expensive: \$4.95 bi-monthly, \$25/year for six issues (from Box 7723, Eugene, Or 97401).

The first issue, like the first issue of HyperAge, shows promise but not a lot of substance. There's information here, but not enough to get a recommendation because of the price (unlike HyperAge). I am going to keep watching it, though, to see if the price goes down or the pages/content goes up. HyperLink has by far the cleanest and best thought out presentation of scripts and field/button info I've seen.

HyperCard magazines, right now, have lots of people doing things, with nobody sticking out of the crowd yet. If I were going to recommend anything, I'd recommend things in this order:

- o Macazine (general Mac magazine with lots of interesting stuff and a strong HyperCard commitment)

- o Nibble Mac (the "gosh wow computers are neat!" version of MacTutor. Heavily into MacBasic, with growing commitments to HyperCard and other things. In my eyes, too expensive to buy just for the HyperCard stuff, but improving. There's also a good series on Excel that may make it more economical for some folks.

- o HyperAge (interesting, potential, but no track record)

- o HyperLink Magazine (same as HyperAge but more expensive, so riskier).

Beyond that, whatever you happen to already read probably is doing HyperCard. I can't see any reason to specially subscribe to general magazines for the HC stuff unless you want the magazine already....

I'm biased fairly strongly against the "magazine on a disk" concept, so you're very unlikely to ever see me mention one of these. Personally, I find them generally rather silly and shallow.

Now, if this doesn't start a discussion, I don't know what will.....

Chuq Von Rospach

Usenet is a loosely-coupled network of co-operating academic and commercial computer systems. It is a non-profit network whose primary aim is the sharing of technical information and the spreading of research results. ☺



• Level One Service Centre • Second to None Product Support •

THE RETURN OF THE FAMOUS UNIDISK OFFER

Bundle 1 - for Apple IIe

Apple Unidisk 800K Drive, Accessory Kit inc. card, MouseDesk master-menu desktop environment and UniMate software for use with DOS 3.3, CP/M and Pascal 1.1/1.2 **All for just £350.00**

Bundle 2 - for Apple IIc

Apple Unidisk 800K Drive, Version 2.1 System Utilities and UniMate software for use with DOS 3.3, CP/M and Pascal 1.1/1.2 **All for just £320.00**

TIMEOUT

AppleWorks Enhancement Series

Seven new AppleWorks enhancements that are more advanced, more powerful, and easier to use than anything you've ever seen. Each application on 5.25 & 3.5 Disks

TIMEOUT GRAPH	£55.00
TIMEOUT SUPERFONTS	£55.00
TIMEOUT QUICKSPELL	£45.00
TIMEOUT ULTRAMACROS	£40.00
TIMEOUT SIDESPREAD	£35.00
TIMEOUT FILEMASTER	£35.00
TIMEOUT DESKTOOLS	£35.00

AWARD WINNING PACKAGE

We can not recommend a Macintosh program more highly than this one! Keyboard enhancer for the Mac! Almost anything you can do with your mouse and keyboard is done with one keystroke in QUICKKEYS. For example, you can assign a keystroke to tools in MacPaint or PageMaker or one that drags a disk to the waste basket. In a word processor, one could open the scrapbook, advance an image, copy, close the scrapbook and paste...in one keystroke. This program is a must for every Macintosh owner. **QUICKKEYS £59.00**

New version 5.0 MacWrite from Claris

Key enhancements include 100,000 word dictionary, keyboard shortcuts for frequently used functions, full page display support on large screen monitors, takes advantage of the increased speed of Macintosh SE & Macintosh II. This is a long awaited upgrade but worth the wait. It's the same old MacWrite but now it's complete. Recommended price £95.00 **Special offer price £69.00**

New MIDI Interface from Apple

We now have in stock Apple's first contribution to music on the Macintosh. This is a simple one MIDI in and one MIDI out interface that takes its power requirements from the Macintosh. A no nonsense product at **only £60.00**

Entry Level Music Packages

ConcertWare + This software is a non-MIDI package and comprises of three sections, **Music Writer**, where music can be entered using the mouse or Macintosh keyboard, **InstrumentMaker™**, which lets you design specific sounds for the Macintosh or modify supplied sounds and **Music Player** which combines the music you've written with the instruments you've designed and plays back your masterpiece through the Macintosh speaker. **Only £35.00**

ConcertWare + MIDI A more powerful version of the above software incorporating real and step time electronic keyboard entry and powerful quantisation options. Although primarily designed to play back through a MIDI synthesiser, **InstrumentMaker™** is still included to enable playback through the Macintosh speaker. **Only £89.00**

Deluxe Music Construction Set 2.0 This is a fine package for composing, performing and publishing your music and stands up with the best of the Macintosh music publishing packages at any price. This package supports Adobe's Sonata font for professional results from the LaserWriter **Only £59.00**

The Applied Engineering Transporter

Yes you can run IBM software on an Apple II!

256K Transporter	£299.00
768K Transporter	£399.00
IIGS Installation Kit	£49.00
II+/Ile Installation Kit	£39.00
5.25" TransDrive	£159.00

RING FOR DETAILS AND FACT SHEET

PRINTSHOP

Still one of our most popular programs and now available for the Macintosh. Printshop provides instant creativity in the Home, School or Office. Produce Letterheads, Greetings cards, Logos, Banners, Certificates, Signs and Notices with only a few keystrokes. Automatic justification and centering. Nine border designs, ten abstract patterns, plus dozens of pictures and symbols. Supports colour on ImageWriter II

Apple IIe/IIc	£29.00	Printshop Companion	£25.00
Apple IIGS	£39.00	Graphics Libraries	£15.00
Macintosh	£35.00		

FROM OUR BARGAIN BASEMENT

Microsoft Works	Mac	£129.00
Microsoft Chart	Mac	£49.00
Microsoft File	Mac	£39.00
Microsoft Multiplan	Mac	£49.00
Apple Quickfile	Ile	£15.00
SuperCalc 3a	Ile	£89.00
FontWorks	Ile	£15.00
TopDraw	IIGS	£39.00
Pascal 1.2	Ile	£49.00
Instant Pascal	Ile	£59.00
Systematics Suite		
Sales, Purchase, Nominal	Ile	£145.00
Used Apple Modem		£179.00
Used Apple IIc		£325.00
Used Macintosh Disk Drive 400K		£49.00
Used 15" ImageWriter I		£299.00
Used Apple II Plus		£95.00
Used Apple Disk Drive II		£95.00

This Month's Special Offers

- LaserWriter Toners**
Genuine Toners for all models.
Special offer while stocks last
£69.00
- 15" Apple ImageWriters**
Few only
A Superb Printer at only
£325.00
- Hypercard**
An opportunity to buy this fantastic software for only
£19.00 - while stocks last!
Hurry! Hurry! Hurry!
- Used LaserWriter ONE ONLY**
Used Apple LaserWriter Plus
Latest Platinum Model with
three months warranty
£2000.00

Please add VAT to all Prices

Mac Library

There are fifteen new disks to add to the Macintosh Library this month. Most importantly, there is the Update disk which includes among other things the information about the Scores virus. Next come four disks containing pictures for the Macintosh II, always supposing that you have the right equipment, of course! Lastly there are ten new disks of HyperStacks.

Disk 906 Update 6

Virus Info - this folder contains a program to help protect your disks against virus programs that corrupt or destroy files, and some programs to help you to detect whether or not your disks are infected with the virus.

Stuffit 1.4 is a utility for packing files so that they take up less disk space. It is particularly useful with HyperCard files.

Image is a public domain program for the Macintosh II for acquiring, enhancing, analyzing, editing, and colour coding grayscale images. When complete, it will perform standard image analysis techniques, including densitometry and morphometry. It can currently do histograms, contrast enhancement, density profiling and digital filtering. It also provides many MacPaint-like editing functions, including the ability to draw lines, rectangles, ovals and text. Objects may be drawn either outlined or filled, in any of 256 colors or shades of gray.

Iconia 6.3 is a fast and easy way to create the application and document icons (ICN#) shown in the Finder, as well as the rest of the bundle structure that is needed.

BWIIIC (Black & White to Colour) is a multiwindow editor for adding and modifying resources which the Macintosh II can use to support colour for windows, dialogs, menus, and other components of a Macintosh application.

Easy Envelopes lets you store up to 99 addresses and then print envelopes with return addresses, etc or graphics on ImageWriter or LaserWriter.

ToMultiFinder gives you a choice on starting up of running Finder or MultiFinder.

Macintosh II Pictures

All the four Mac II Picture disks contain picture utilities to help you to view and manipulate the files on the disk. GIF format is a high-compression storage system that compacts the picture files into a smaller space. The **Giffer** program is used to view them and also convert the images to PICT, PICT resource, etc.

The **GrayView** and **Flash** utilities open pictures that have been saved as PICT resource files.

Disk 072 Mac II 2

Contains the following pictures in addition to the utilities:-

Creation, Crow, Floor Plan, Green Parrot, IC Face, Ice Cream, Jimi, KimDoughnuts, Lighthouse, Mandrill, Miller, MTV, Palm Tree, Pinups, Pooh, Steve Dallas, Tiger2, Venus, Vermeer.

Disk 073 Mac II 3

Contains the following pictures in addition to the utilities:-

Balloons, AppleBalls, Sailboard, Landscape, Edwin Aldrin, IC Face Robot Arm, Juggler, Cheetah.

Disk 074 Mac II 4

Contains the following pictures in addition to the utilities:-

\$20, C&S#9, Castle, Cheryl, Del Yocam, Dollar, Footprint, Glass, Kim, MacPaint girl, Mt. Hood, Sailboat, Spock.

Disk 075 Mac II 5

Contains the following pictures in addition to the utilities:-

DRGW 480, Fantasy, Tennis, ADP cop, Girl+orb, Mendo, Kirk, Lizards, Miller label, 4 Nagel pics, OwlMan, 2010, BallBlaser, Future Castle, Moonrise, NASA logo, Orbiting shuttle, Shuttle, Station, SR-71 Spy plane, Surfer, USC girl.

Disk 286 HyperStacks 26

Chess Library v 1.061 enables you to play the chess games that are included with it, from within HyperCard.

Report IPS - this stack allows you to search a stack to find certain cards or a report from selected cards, which are then put into a new stack. You can then print report files or a text file from the new stack.



Highlight Stack A stack that contains an XCMD which allows you to highlight buttons and fields as the cursor passes over them. A very useful form of feedback for people who are not familiar with computers and the concept of on-screen buttons. People are more likely to click on an on-screen button if it reacts when the the cursor moves over the button. Using an XCMD make the feedback almost instantaneous at the cost of some initial startup lag.

HyperTree is a genealogy Hypercard stack for the Macintosh.

Windoid is a kind of HyperCard magazine.

Windoid Volume 1 No 1 gives information on double click button scripts, sticky buttons in fields, finding the line clicked in, preventing peeking at buttons; also power user tips on going directly to scripts, automatic strightedge, stack building hints and button and field names.

Windoid Volume 1 No 2 has help on importing text, more power user tips, programming function keys, IconMaker 2.1 and editorial comments.

Windoid Volume 1 No 3 contains Editor's choice, power user tips, universal import button, and Whoops!

Windoid Volume 1 No 4 has information on grouping and moving buttons and fields, finding a multi-word string, HyperCard hints, and autolinks.

Disk 287 HyperStacks 27

Hyper Research - This is in-

tended for anyone who needs a program that will help them to organize their reports. It allows notes to be written on scrollable notecards.



Librarian 1.0 is a reference locator system for the rest of us. Librarian is a reference tracking stack to help you to keep your personal library in order. It will allow you to generate bibliographies, track status of books etc. **MacPhone Book** has more than twenty-five phone book files containing names and some numbers, some quite interesting but mostly American.

Disk 288 HyperStacks 28



MacRecorder™ Demo is a stack which gives you a glimpse of the facilities of the MacRecorder. The sound for this presentation was recorded with the MacRecorder™ hardware and HyperSound™ and Sound Editor software. The disk has example recorded sounds which play as you go through the demo.

Disk 289 HyperStacks 29

Cursors Pointed Again contains 50 different cursors borrowed from many different programs.

db Importer is a database importer which imports a text file with fields separated by tabs and records carriage returns.

DEQ Promo is a small animated display.

Disp PICT stack is a demo of DispPICT XCMD for displaying colour pictures on a Mac II.

Do FKey is an XCMD that can be copied into the home stack so that you can call FKeys from HyperCard Scripts.

Hard disk Protect 1.3 accesses system file 4.0 or higher and password protects your internal hard disk.

KarMac the Accountant is a fun sound stack.

PinPointer gets the rectangle of each visible card object and redraws it in the background plane, it is then labelled as a button or a field and given the number of the object.

Power Tools - When you press Enter the tool rotates through Browse tool, button tool, field tool, etc.

Screen Lock uses XCMD 'Talk' by James Paul. The stack contains a screen locking script - can only be unlocked with a password.

Selektor 1.0 can be used to gather up selected cards from any stack according to criteria selected with search fields.

Sfx Stack contains 14 'snd' resources.

Sort Items stack contains an XFCN which will sort the items in a HyperCard field.

Disk 290 HyperStacks 30



The PhoneNET System™ 1.02

The PhoneNET Demo - PhoneNET™ is an integrated cabling scheme and network management system for AppleTalk. With PhoneNET it is possible to run AppleTalk over inexpensive telephone wire to create local area networks. The demo covers construction of daisy chain, backbone and passive star networks. The demo gives details of the Network management system using Traffic Watch and PhoneNET CheckNET.

Disk 291 HyperStacks 31

Card Calc 1.1 is a HyperCard Calculator which enables you to perform mathematical calculations just like you would on a normal calculator. In Help mode there is an explanation of what each key does. Results are displayed in the display window and you can get a hardcopy of your results.

Importers Folder contains two stacks which enable you to import material from Microsoft's Excel and File.

MPG stack helps you calculate the miles per gallon for your vehicle.

Price Calc! is a business utility which lets you calculate discounts on goods.

Public Filofax is a utility for or-

ganising miscellaneous info in a quick and easy manner.

Scheduler enables you to organise a schedule of work with days on, days off etc.



SpeechWriter 1.0 is a talking application which utilizes the powerful features of HyperCard in preparing and constructing speeches, messages, and sermons.

Summarizer has been developed to enable the summarizing of a book under chapter and topic headings. Would make a good students aid.

Disk 292 HyperStacks 32

HyperNews Vol1 No2 contains news items, reviews, interviews and features.

MacWeek Vol1:32 is a HyperStack newspaper; an electronic edition of MacWeek.

Know It All is a type of calendar for 1988.

Subscribe to the Journal gives info on the CAD/CAM journal.

TeleStack is another electronic magazine.

Disk 293 HyperStacks 33

Contains three sound stacks Audience sounds; trumpet flourishes; science fiction sounds.

Disk 294 HyperStacks 34

GENS 1.0 is a stack that allows the entering of data about family relationships and keeps track of six generations of a family tree.

Genealogy 1.0 allows the creation of cards representing the families of your ancestors, you and your children.

Flight Plan helps you keep track of flight plans.

Disk Manager 1.01 allows details of disk contents to be stored on stack cards.

Bill Tracking helps you to

keep track of monthly bills. Back Issues 1.0 is for keeping track of a collection of old magazines.

hc Labeller produces disk labels for HyperCard stacks.



Music Library keeps a record of LP's and 45's etc.

Print File contains six new buttons to put in your address stack. It will print out a label or address.

Quick Index Address stack - this is a quick index card to be used as a first card in an address stack.

Quick Memo is for writing quick informal notes.

QuickNotes is a notepad for HyperCard.

Sales Ratios - a business stack giving sales activity forecast.

Software Librarian helps to keep track of files and disks.

Disk 295 HyperStacks 35

Sounds 1 is a stack which stores the sounds of many of the most common musical instruments and lets you not only hear the sounds but play tunes using them as well as input your own tunes through an on-screen keyboard.

Frog Phone Book is an address and telephone number card system allowing categorisation and sorting of items, etc.

NB: All items on these disks are, to the best of our knowledge, in the public domain.

Omnis Q & A

Questions and Answers concerning the popular Omnis 3 Plus database from Blyth Software.

New features for Omnis3 Plus

Q1. If I were to upgrade from Omnis 3 Plus version 3.25 to Omnis 3 Plus version 3.3 will my libraries and data be transferable or will I have to re-type them?

A1. Omnis 3.3 will read any 3 Plus library and convert it to a 3.3 format. This is also true of the data file.

Q2. Our company has an extremely large database at our head office on a mini computer. At present we need to go through complicated transfer routines to get our data into Omnis which are time consuming and therefore, the data may not be up to date once in Omnis. Is there a way that Omnis3 Plus can talk to our computer at our head office?

A2. With the release of Omnis 3 Plus version 3.3 will come an SQL connectivity pack, which will allow communication with mini computers via Network Innovations CL/1 server.

Q3. At present when I design a report that uses numerous fonts and sizes what I view on the screen is not a true representation of what is actually printed. This in turn then wastes a lot of time and paper while I try to re-format the report. Is there any way around this problem?

A3. In the new version of Omnis3 Plus version 3.3 report formats will now support WYSIWYG (What-You-See-Is-What-You-Get). This version will also support colour, vertical and horizontal scrolling and page preview.

Q4. I have recently bought Quartz and in conversations with your Support Department, I gather there is also an Omnis for the Macintosh. I would like to implement Macintoshes on a wider scale but do not wish to completely remove the existing hardware. Is there a way for the two sets of machines to talk to each other simultaneously?

A4. With version 3.3 of Omnis it will be possible to access a data file from within Quartz on an IBM, and Omnis3 Plus 3.3 on a Macintosh, simultaneously whilst running applications with the appropriate formats on both sets of machines.

Q5. Within our company we have some experienced Macintosh programmers and we wish to capture data directly from the port, our programmers can do this part but we cannot at present interactively use the data within Omnis. Is there any method by which this can be facilitated?

A5. Omnis3 Plus version 3.3 can call an external code resource written by your programmers which can enter data directly into the area of memory used by the Array. Thus facilitating interactive data input from the port.

The English version of Omnis 3 Plus (3.3) will be released in mid-September 1988.

Omnis 3 Plus is a relational database program for the Macintosh, published by:-

Blyth Software Ltd, Mitford House, Benhall, Saxmundham, Suffolk, England IP17 1JS
Telephone 0728 4154

Questions to PO Box, please. ☛

Club Business

Minutes of the Annual General Meeting of B.A.S.U.G. Ltd., April 9th, 1988.

Minutes of the Annual General Meeting of B.A.S.U.G. Ltd.

Twenty-one members of the club were present, and a further twenty were represented by proxy.

The Chairman opened the meeting at 11.25 a.m.

1. Minutes of the Last AGM held on 4th April, 1987.

The minutes of the last AGM were accepted as a true record of that meeting.

2. Chairman's Report

I will begin by going over some of the events of the past year. First and most importantly, the magazine has got slightly better in both content and presentation, and for the next issue I have so much Apple II stuff I didn't know where to put it.

We also attended the MacUser Show in November and had a fantastic response considering a) the costs b) the problems of manning the stand and c) you could hardly move in the place. The stand was very busy all the time. We did get a lot of new members and in addition it meant that we were represented at the show even though we had to pay a lot for the stand.

In the last few months we have started running workshops. Mike Davies has put this together by running four. The first one was held in the same place as we are in today around the 12th March. Although it wasn't well attended, everybody that did attend enjoyed themselves. Most people thought it was worth doing and some people down here are thinking of starting a local group.

The next thing is the Macintosh

Library which is doing what the Apple II library did four or five years ago. In other words there is so much stuff with Hypercard coming along and it looks as if its going to continue for a year or so. I made a note about TABBS. Tony Game who ran BABBS for years had unfortunately to give up the post because of reasons beyond his control. I am grateful to Ewen Wannop who stepped in and said he would take it over at short notice. I understand it is going fairly well now.

The Force is still running although the numbers don't seem to be going up very much. Local Groups have flourished, it's difficult to get them on one page now. We come next to our relationships with Apple over the last year. A few months ago they held a large gathering at a place called Slough, at a hotel there. We had to talk about the user groups and it was run by two people who were designed to run these things. Nothing has come out of it though except that the User Group Council has been set up. I have been trying to find out about this in the last few days. We have a Chairman who is a member of the London Apple II user group, the secretary is a fellow from Berkshire, and Richard Boyd is the deputy Chairman. Oh yes, Graham Attwood's treasurer. He hasn't done much treasuring yet as he hasn't got any money. Apple, well, we had a good relationship with them a year or so ago. Obviously when they have a new product launch everything goes very quiet. The relationship with them goes up and down like waves. Hopefully when the User Group Council gets going things will get better. Keith Phillips the Managing Director attended for two hours, didn't say anything,

sat there and watched and listened. It is too early to say if anything will come of it. They've fed back all the notes from the flip charts and that's about it.

During the past year the committee have struggled under extreme pressure of work to keep the ship tidy and on course. This has caused a fair number of casualties and also friction at times. I don't really want to say too much about it but it is all due to the fact that the few people who really do the work are under too much pressure. Having said that, we got a new administrator in November who has been doing all the PR jobs and that will take some of the burden off us eventually.

Now lots of thanks to lots of people who are not on the committee. Thanks to Mike Davies for doing the workshops and to Tony Game for looking after BABBS for so long and for Ewen Wannop for TABBS. Then there's John Lee who looks after the Force. Thanks to MGA and John Gurr, his letter in a recent issue caused quite a stir and now we have many people falling over themselves to review Apple software, which means that we have some Apple articles to go in the magazine, and they have also advertised with us regularly. Bidmuthin, who are Apple dealers, are rather committed to Apple II, as well as Mac, and a workshop will be held on their premises. The people who work at Bidmuthin are totally committed and are also friendly to Apple2000. MacSerious have changed their angle recently, though Jim Mangles really supports the club. Over the past few years he has often supplied software to be reviewed by the club, and he also supplied a screen which gets the picture from the Mac screen up onto an overhead projector.

I also want to thank other members for their support. There are some who constantly supply articles and are willing to help in other ways. Without these members we wouldn't be here, I don't think.

My last thing is to thank all the committee. People like Keith Chamberlain who has been busy beavering away doing the Force database, the membership database, and working hard with Omnis. Graham Attwood did some work for Apple and got the

group a LaserWriter for all his hard work. I'd like to thank Irene for looking after the treasurership and Norah for working hard on the Macintosh Library and the secretarial duties. Seth has looked after communications. Ivan has been the ideas man and runs a local group so if you're near the West Midlands Safari Park then call in and you might get a go on his Mac.

Unfortunately the committee will change this year. I'm not standing again through pressure of work. Keith Chamberlain won't be standing again for the same reason and I hope the people on the committee in the coming year can keep the ship afloat and tidy.

3. Secretary's Report.

My report last year mainly concerned the Data Protection Act and there is only one addition to what I said last time, which is that we have had to make another declaration under the Act concerning the short list of names of people who use the Force, which is kept by John Lee. We now have four Part B's registered under the Data Protection Act. I will not list the others as they were covered very thoroughly at the last AGM. As Jim has said, there haven't been very many changes to the committee during the year. Sometimes we have people resigning from the committee between AGM's for various reasons, but this has not happened this year. At the last AGM the committee that was elected stated their intention of co-opting Tony Game to the committee as committee member with no other duties than to look after BABBS, and that we would also co-opt Tom Wright, which we did. Both Tony and Tom were co-opted at the first committee meeting after the AGM and since then there have been no resignations during the year, but there will be resignations taking effect from today.

I would like to say something about Tony Game. He has been with us for so long and helped so much in running BABBS which has been his sole occupation and enjoyment for much of the time. We were all very sad when we realised that Tony had to give up running BABBS, and the committee unanimously decided to make Tony an honorary member for life.

Let's hope the group lasts that long!

We really wish him the best of luck and although he doesn't know this yet, we have had a certificate of honorary membership made for Tony which is a copy of the one we had made for Steve Wozniak on the occasion of his being made an honorary member. (The certificate was shown to those present.) It has been signed by the relevant people and has been framed and will be handed to Tony as a small token of our gratitude for all the work he has put in running BABBS over the past few years. Tony can rest assured that the bulletin board has gone to good hands now that it is with Ewen. Jim has already thanked many of the people who have helped us, on or off the committee and I would like to add my appreciation of all that they have done, in addition to what has been said previously. I would also like to add a word about the Macintosh Library. It has only just come home to me how fast things are going. I have just received in the last day or two, approximately 80 disks, all 800K, of material for the Macintosh Library, mostly HyperStacks, some of which have been packed with 'Stuffit' and will take up even more disks when unpacked. That is just a small indication of how fast things are growing at the moment.

I would like to say a personal thankyou to Sak Wathanasin who has helped by supplying public domain material for the Macintosh Library. Also Mike OShaughnessy has helped with the sorting. I think Dave Flaxman does a great deal more to help than he cares to admit and our thanks need to go to him. Dave Ward has done an excellent job again on the Hotline. All these people contribute a great deal to the running of the club and I am sure that the whole thing would come to a halt without them. As Jim has already mentioned we now have additional help from Alison Davies and from Mike Davies in running the workshops.

4. Treasurer's Report.

Hopefully everyone has a copy of the accounts as they were issued to all members. I've not got a great deal to say about them. As a non-profitmaking organisation we

obviously don't aim to make vast amounts at the end of the day. We function to serve the members and keep our heads above water and that's about all.

Whereas last year we had a fairly large surplus because over the previous two years we had been working very hard at cutting costs and keeping expenses to a minimum in order to remove the large deficit which had continued previously, now that we have got into a better position we have lowered some of our prices, for instance, for the Macintosh Library disks and blank disks. This has come about partly because we have got better prices on purchasing and partly because we should not charge more than can be justified in view of our costs.

We have made some purchases of hardware. I feel very strongly that the club should aim to become self-sufficient in terms of the equipment we use in order to provide a service to members. We have purchased some hard disks, and we also have the LaserWriter which Graham earned for the group by producing the GS Selector, and we have been looking to buy more fixed assets to be used in the production of the magazine. We have continued to advertise on occasions during the last year and this has paid off. We went to the MacUser Show which was a very large commitment. It was a hard decision to make because it was an expensive show to attend but we had to do it and we hope that the members agreed it was the right thing to do.

I personally would like to thank everybody on the committee for their support, and thank everyone who has helped during the year, even if it was only copying disks or whatever.

The Treasurer then asked those present if they wished to ask any questions.

Mike Davies asked a question as to payments to the previous editor and the Treasurer said that Peter Baron had charged a fee for his services but that for the last two and a half years the magazine had been edited by Jim Panks, who had not. (See footnote.)

5. Adoption of the Accounts.

The Secretary asked whether anyone had any objections to the

adoption of the accounts, and as there were no objections the accounts were adopted.

6. Election of Officers.

Mike Davies thought that it was a pity that the committee had to change and that there would be a lack of continuity. He enquired as to what length of time the committee were elected and was told by the Secretary that the committee was re-elected each year.

Mick Knapp pointed out that as it had only been learned in the last few minutes that some members of the committee were not standing again, this had not given members time to respond and put themselves forward for election. Norah Arnold stated that as from that time it should be taken that everyone who was a member of the committee had resigned. Obviously if the members of the committee who wished to stand down had intimated their intention in writing to the Secretary earlier, then the situation could have been put to the membership and nominations requested as a matter of urgency.

Mike Davies thought that it was a pity this had not been done.

Norah Arnold said that only one member of the committee had resigned by writing to the Secretary and that was Seth Proctor. Two other members had intimated that they may not stand again.

Mike Davies asked why the committee members had not submitted their resignations in the proper manner in good time.

Jim Panks replied that perhaps people had not known two or three weeks previously that they would be resigning.

Mike Davies then asked Jim Panks why he should have made such a snap decision.

Jim Panks replied that a few weeks earlier he had not realised that he would be resigning, but that he felt he needed a break and had served on the committee long enough. He would edit the April issue of the magazine and that would be his last.

Norah Arnold said that the committee having resigned, the nominations received totalled only four. They were as follows:- Irene Flaxman had been nominated as Treasurer.

Norah Arnold had been nomi-

nated as Secretary.

Keith Rookledge, of Pinner had been nominated as committee member.

Kenneth Hegarty, of Bungay had been nominated as committee member.

Some discussion followed as to whether those nominated would constitute a quorum. Norah Arnold replied that fortunately the requirements for a quorum would be met.

Norah Arnold then asked that the nominations be accepted and the four new committee members be given the backing of those present for rebuilding the committee and finding a new chairman as obviously more people would offer their services when the situation became known.

R. H. Thompson proposed and Ewen Wannop seconded that the nominations be accepted and the backing given as requested. The proposal was passed unanimously.

7. Any Other Business.

1. Ewen Wannop reminded those present that co-options had been made after the last AGM.

Norah Arnold asked that any members willing to be co-opted should make their wishes known to either herself or Irene Flaxman within a few minutes of the closing of the meeting or at least before they left the building.

2. Mike Davies asked the committee if they had anyone in mind for the new editor.

Norah Arnold replied that it was obviously too early to answer the question regarding the editorship as the previous editor had only made his intentions clear a few minutes previously.

Irene Flaxman said that the magazine would be the main item for the first committee meeting, which would not be too far distant and the committee saw that as a priority and realised all the hard work that Jim had put in.

Mike Davies proposed a vote of thanks to Jim Panks for his unstinting efforts over the years. He had been instrumental in raising the standard of the magazine and this had caused hardship to his family and taken a great deal of his time. Mike thought that Jim would be sorely missed as editor. Mike Worth seconded, passed unanimously.

3. Mike Davies asked that the members thanks to all the past committee be recorded as well, for all their hard work, and hoped that the club ran smoothly over 1988.

As there was no further business the meeting closed at 12.07 p.m.

Footnote:- Clarification of point raised by Mike Davies about the payment of the editor:- It should be noted that Peter Baron was expected to meet all expenses incurred in connection with editing the magazine and for obtaining advertising from his fee, whereas Jim Panks claimed reimbursement of all expenses incurred in connection with editing the magazine and a separate fee was paid for the obtaining of advertising.

Letter from Tony Game

The Chairman, officials, and members, Apple2000 committee.

Dear fellow club members,

I have received the certificate of your award to me of honorary membership of Apple2000. My profound sense of the great honour that you have done me, and the solemnity of my feelings on the occasion, made it seem that I could only express myself adequately in a most formal letter of acknowledgement and gratitude. However I find that my delight is such that I cannot write such a letter. I find that I have simply to tell you how very very proud and happy I am to have been so highly honoured. I only wish that I could feel more worthy of it. The club has done so much for me, and meant so much to me, during the years of my membership, that the knowledge of being permanently associated with it, and with you all, is quite overwhelmingly delightful. I could never have dreamt that the little I have been able to do would be rewarded in so signal a manner. Thankyou all from the bottom of my heart. I shall try to do what small things I may be able to do to make myself worthy of this extreme distinction.

Yours fraternally,

Tony Game.

15 Lansdowne Road,

Putney, London,

SW15 2NU.

Members' Small Advertisements

FOR SALE

AE RamFactor 1Mb. Compatible with II+, IIe, IIGS.
Includes AppleWorks Expander softwar.....**£195**
AE Z-80 Plus. Compatible with II+, IIe, IIGS.
5.25" & 3.5" disk drives & most hard disks.
Includes CP/AM 5.1 & Ram Drive software.....**£78**
80-col. for II+ with softswitch.....**£15**
Simon Aristocard serial interface.....**£10**

Telephone Peter Dyson on..... (01343) 34633

FOR SALE

StyleWare MultiScribe Desk Accessories, for use
with MultiScribe (version 2.0 or later) for the Apple
//e or //c.
Shrink-wrapped original package with full docu-
mentation.
Adds calculator, clock calender, macros and
puzzles.
Including postage.....**£20**

Telephone Harvey Nyman on one of the following:
Daytime..... (01) 268 7309
Evenings..... (01) 904 6700
Telecom Gold..... (79) 445004

FOR SALE

Apple IIGS with 1 MByte expansion card and single
drive
Brother HR15 daisy wheel printer
Bundle.....**£1275**
(or will split/negotiate).

Telephone Nick Brown on one of the following:
Daytime..... (01) 247 5496 ext. 2105
Evenings..... (01343) 20835

FOR SALE

Apple IIa, with orange monitor and 2 disk drives.
Epsom MX80 F/T II printer.

Telephone B.W. Reynolds on..... 01 462 9536

FOR SALE

Back issues of Apple magazines. Most Windfalls/
Apple Users since 1981, Call-Apples since 1981, all
HardCores and Apple2000s, several years of A+,
Nibble, InCider, and other American titles. Offers for
the lot.

Telephone Bob Sather (evenings) on... 01-200-0104

FOR SALE

Apple //c.....**£450**
2nd drive.....**£70**
Nightingale modem.....**£60**
Green screen monitor.....**£60**
RX80 printer.....**£100**
Apple //e 128k 80-column with controller &
two drives and green screen monitor.....**£450**
Microvitec colour monitor and Spectrogram
RGB card.....**£280**
1 Mbyte Cirtech RAM card.....**£110**
Accelerator card.....**£90**
Epson FX80 & controller card.....**£250**
Masses of software for each machine.

For further details, telephone..... (01343) 213333

Acknowledgement

Our thanks to MGA MicroSystems for supplying
Apple II products to our members for review pur-
poses. This has made it possible to increase the
coverage of the Apple II range.

Members Small Adverts are FREE.

We reserve the right to edit and or omit them.
They are placed in this Magazine in good faith.
Apple2000 holds no responsibility over items
advertised, and buyers purchase at their own
risk.

Advertisers' Index

Apple Computer (UK) Ltd	4/5	Joe Sudwarts	21
Bidmuthin Technologies Ltd	27/35	Kolour Software Ltd	17
Camelot Computing	52	Logica UK Ltd	63
Celtip Computers	55	MacEurope	Inside covers 49/51/53
Chameleon Software	15	The MacSerious Company	Back cover
Cirtech (UK) Ltd	13	MGA MicroSystems	11
Computerline	59	Open-Apple	8
Comtec Computer Repairs	63	Roger D'Arcy Computers	17
Holdens Computer Services	73	Vega Services	67



No matter which Mac you've got, we'll make it work faster.

You want more speed from your Mac. Less time waiting, more time working. Now your dream is reality whether you've a new MacII or a 128K of legend.

How about my SE?



Run your SE with MacII performance by slotting in the Turbo SE. Everything runs at least twice as fast; faster than many 68020 designs. A big screen attaches, and the 68881 maths co-processor option runs spreadsheets 60 to 100 times faster (and other programs using SANE).

And because we use the ultimate in compatibility (the same 68000 processor your Mac uses, only twice as fast) your Mac software won't crash. Unlike the 68020 boards. So your data is in safe hands.

And at £449.00 that's irresistible.

With TurboMax you get more speed plus more memory..... 2 to 3 times faster, 2MB of memory, upgradeable to 4MB.

RAMdisk contents are protected, so you can safely work on your programs and data at memory speeds. There's a superspeed SCSI and the 68881 maths co-processor option makes spreadsheets (and other SANE programmes) run 60 to 100 times faster. There's a big screen attachment, too.

Of course, it's crash proof as the Turbo SE. Fits in minutes without modifying the Mac and it costs only **£1,195**.

TurboMax also re-enhances the 512K Enhanced for an amazing performance.

I love my 512K..



case- the SCSI port exits from the battery compartment.

Bigger software- bigger memory.



To run Apple's great new software you are going to need bigger memory. For scanning, and many other programs, too, 1MB is not enough.

But you just can't risk fitting second-rate memory. You put a lot of work at stake when intermittents crash your system (as they will).

So MacMemory offers you **crash-proof** memory with MaxPlus 2x4S surface mounted megabit chip modules meeting or exceeding Apple's own standards in every respect.

You'll feel safer knowing your MacMemory enhancements use first quality chips (not the cheaper production reject units used by some others), and are 100% tested at each stage and are even given a final 72 hour burn-in in an actual Mac. No-one else takes this much trouble to give you error-free performance!

MaxPlus 2x4S take your SE to 2.5MB (and onto 4MB), support all Apple standard add-ons and also plugs into Turbo SE. No modifications are required of any kind.

Mac Plus upgrades economically to 2MB and onto 4MB without any mods. Your every

(128K owners... we'll get you to 512K, and then add TurboMax). Connect your SCSI hard disks directly through the superspeed SCSI port. No mods to the 512K

need is catered for with different modules, including big screens.

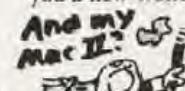
A4MB 512K?



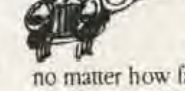
You'll love what the Max2 does for your 512K, Max2 gives 2MB, upgrades to 4MB, and works with old or new ROMs and allows a SCSI port to be fitted when you're ready.



You're not alone - we started off with 128K's too! So don't send yours to the knackers yard. We'll take you to 512K- and then Max2 or TurboMax promise you a new world of speed and software.



You need more than 1MB to do anything useful and MaxPlus 2x4S takes you to 8MB!



Remember, even your beautiful MacII will crash, no matter how fast, through intermittents if you fit not-quite-industry-standard memory. Treat your wonder machine to MacMemory.

It's crash proof

Hardware is hardware. But support for it can range from "total" to "non-existent". MacEurope's is total. All the facilities you expect from a major manufacturer.

And we work closely with only the best dealers. You can expect and get the best service in the industry. (Ask our customers....)

Call Colette Fanning on **(0603) 630636** for more info, super data sheets and details of where you can see our products in action.

Can I help?



MacMemory from

MacEurope

The Granary, Trowse Bridge, Bracondale,
Norwich NR1 2EG, England. Tel: (0603) 630636

Fax: 0603 630374

Abaton

Abaton Technology Corporation
7901 Stoneridge Drive, Suite 500
Pleasanton CA 94566

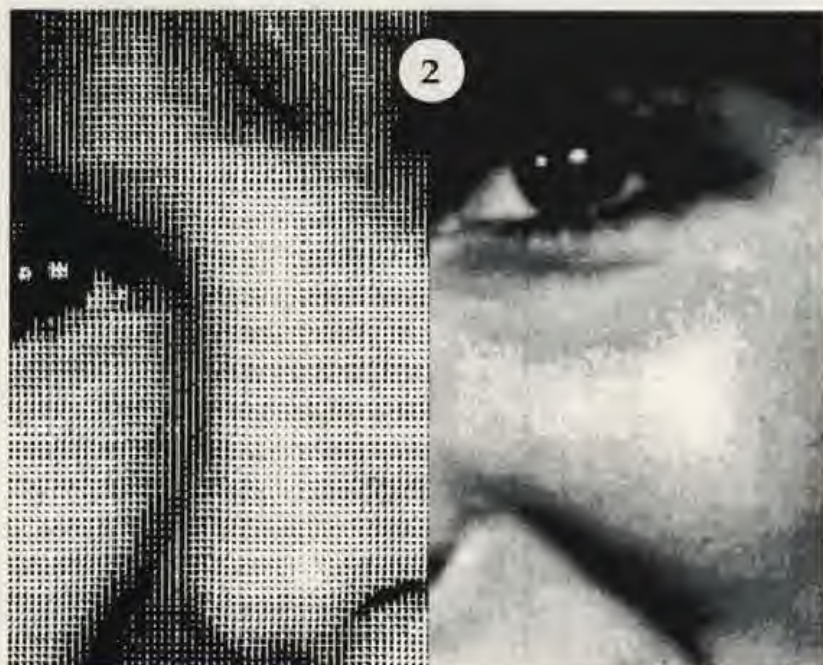
**Why an Abaton Scan300/SF or Scan300/FB scanner with C-Scan 1.6
is the only choice for graphics scanning with the Macintosh.**

HALF TONE



GREY SCALE

- Abaton C-Scan 1.6 software introduces TRUE grey-scale scanning for the first time for a desktop computer.
- To see how it differs from the rest, we've included an example - an image scanned from a photograph, like you've never seen it before!
- Picture 1 shows the picture at full-scale, exactly as scanned.
- In the second picture, we've expanded a small area of the same image, showing how well it's appearance is preserved even when blown up three-fold.
- Finally, the third picture blows up the image twice more, to let you see the secret of this magnificent clarity - only now just visible are the individual pixels that come together to make the 16-level (4-bit) true grey-scale image that no other scanner system can offer.
- There are no special tricks here - the picture is completely unretouched, and printed on a Linotron printer.
- And it's the only scanning system that produces images that let you use the full power of Letraset's Image Studio graphics software.



Abaton products are distributed
in the UK exclusively by

MacSerious

The MacSerious Company
17 Park Circus Place Glasgow G3 6AH
Phone 041-332-5622 Fax 041-332-3209
Telex 777021 MACSER